# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 483.—Vol. XIV.] LONDON: SATURDAY, NOVEMBER 23, 1844. [Price 6d.

SHARES IN VALUABLE BRITISH MINES, PAYING DIVIDENDS, AND ADAPTED FOR INVESTMENT.

MR. C. WARTON begs to announce that his NEXT SALE, BY AUCTION, of MINING PROPERTY, will take place at the Mart, London, on Wednesday, the 27th of November, at Twelve o'clock, and will include SHARES in Trethellan, East Pool, Wheal Providence, Levant, the Providence Mines, West Caradon, Gonamena, Craddock Moor, East Caradon, Tokenbury, South Tregoland, Wheal Sisters, Wheal Hope, Camden Mines, Wheal Prosper, St. Austell Consols, and Wheal Mary Ann, and other established mines, besides SHARES in more recent adventures of great promise; TWENTY SHARES in MARKE VALLEY, and FIFTY £20 SHARES in the AYLESBURY RAILWAY, of which particulars are preparing, and may be had in due time at the Auction Mart; at the Golden Lion, Liverpool; Pearce's Hotels, Truro and Penzance; and of Mr. C. Warton, auctioneer, &c., 28, Throgmorton street.

STEAM-ENGINE AND MINING MATERIALS.

MR. WILLIAM MURRAY, Jun., has received instructions to SELL, BY PUBLIC AUCTION, at Liskeard Consolidated Mines, in the parish of St. Cleer, Cornwall, on Wednesday, the 27th day of November inst., at Eleven o'clock in the forenoon, the following valuable MINING MATERIALS—viz.:

A 30-inch cylinder STEAM-ENGINE, with 8 feet stroke in cylinder and 7 feet in shaft, equal beam—complete, with a boiler about 7 tons.

Capstan and shears. Horse whim.
Capstan rope, 12-inch. Whim rope.
Large balance bob—complete.
[illegible] fathoms 10-inch pumps, with 10-inch plunger—complete.
[illegible] fathoms 11-inch lift—complete; 17 fms. 9-inch lift, do.; 17 fms. 7-inch lift, do.
40 fathoms 8-inch connection-rods, with strapping plates—complete.
60 fathoms of ladders. 70 fathoms of air pipes.
Smiths' bellows and anvil; smiths' tools; a quantity of new and old iron.
A quantity of new and old timber, and a variety of other useful articles.

The engine and materials are nearly new, and are worthy the attention of mine agents generally.

For particulars apply to the agents on the mine, or to the purser, Mr. Jas. J[illegible], jun., Liskeard.—Dated Nov. 12.

DEE BANK FORGE.—Freehold and Leasehold Land and Premises, two valuable 24 horse-power Engines and Machinery, Bagillt.

MESSRS. THOMAS WINSTANLEY and SONS, of Liverpool, have received instructions to SELL, by AUCTION, on Wednesday, the 4th December next, at One o'clock, at the Clarendon Rooms, South John-street, Liverpool (unless previously disposed of by Private Contract), the highly desirable and valuable freehold and leasehold land and premises known as the DEE BANK FORGE, BAGILLT, eligibly situate on the Holyhead and Chester highroad, bounded on the north by the river Dee, and on the south by the Chester and Holywell road. The buildings are recently erected, and of the best stone, and covered with [illegible] slate, [illegible] the woodwork of the best materials, and consist of a fitting shop, 140 feet by 24 feet, and a boiler shop, [illegible] feet by 24 feet, and contain a [illegible] lathe and a variety of other lathes, large boring mill, drilling and screwing machines, powerful punching press, bending rollers and tools, worked by an excellent 24 horse-power condensing engine. [illegible]

VALUABLE MINING PROPERTY.—The PROPRIETORS of a MINE, now in successful operation, most rich and abundant in its metallic productions, and upon which they are erecting a powerful steam-engine and machinery of every requisite description, with a view to its extensive working, DESIRE TO MAKE A SMALL ADDITION TO THEIR CAPITAL, which is scarcely adequate to the prosecution of their undertaking on the proposed scale; they are prepared to treat on terms of a liberal nature, and upon a principle excluding the responsibility which usually attaches to proprietorship in such undertakings.

Messrs. Pritchard and Collette, solicitors, 57, Lincoln's Inn fields, will communicate, to parties disposed to treat, every necessary information.

LEAD MINES.—ON SALE, ONE QUARTER OF LEAD WORK, which is in Denbighshire, near Mostyn, where they are now getting.—Apply to Mr. Edward Jones, North and South Wales Tavern, 71, [illegible] street, Liverpool.

IRON TRADE.—WANTED, a PARTNER in the IRON and FOUNDRY TRADES.—For particulars apply by letter (pre-paid), [illegible], Birmingham.

FOR SALE, A HIGH-PRESSURE STEAM CYLINDER, [illegible] feet diameter and [illegible] stroke, metallic packed piston, piston rod, crosshead, and cylinder cover; the cylinder is fitted up with two short slide valves and gearing for working the same, also an expansive valve and gearing—all in good working order; has only been at work four years, and was recently replaced by a larger one, will be SOLD VERY CHEAP.—Apply to Messrs. James Gray and Co., engineers, Washington street, Glasgow.

PATENT METALLIC SAND CEMENT, OR ENGLISH POZZOLANO.—TO ENGINEERS, ARCHITECTS, AND BUILDERS.—The proprietors of the PATENT METALLIC SAND, after two years' experience of its merits, confidently recommend it to the attention of engineers and architects as a valuable material in all works where hydraulic cements are necessary, and great strength is required. [illegible]

Further information will be given, and specimens shown, on application [illegible] C. S. [illegible], 4, New Broad-street; and at the Metallic Cement Wharf, King's road, opposite Pratt street, Camden New Town.

LA'MERT ON DEBILITY, NERVOUSNESS, AND ALL DISORDERS ARISING FROM EXCESS, &c.

"He who in pleasure's devious ways | [illegible]
[illegible] | [illegible]"

Just published, the Sixteenth Edition, in a sealed envelope, price 2s. 6d., or sent by post to any address, for 3s. 6d.

SELF PRESERVATION: A Popular Essay on those concealed disorders of the generative system, [illegible] By SAMUEL LA'MERT, consulting surgeon, [illegible] Bedford street, [illegible] square, London, [illegible] [illegible]

JOINT-STOCK COMPANIES REGISTRATION ACT.—EXISTING COMPANIES.—The attention of existing Joint-Stock Companies is called to the 58th clause of the 7 and 8 Vic., c. 110, which provides that, with few exceptions, all JOINT-STOCK COMPANIES whatever, whether incorporated or otherwise, which shall exist on the 1st November, 1844, must REGISTER within three months of that day—

1. The name and style of the company.
2. The purpose of the company.
3. The principal or only place for carrying on the business.

under a penalty not exceeding £25. No fee is payable on making the return. The return must be made upon or uniformly with a certain form appointed by the Board of Trade, which may be bought at Mr. Smith's, 49, Long-acre. The companies exempted from this obligation are banking companies, schools and scientific and literary institutions, certain friendly societies, loan societies, benefit building societies, mining partnerships on the cost book principle, anonymous partnerships in Ireland, Scotch companies having no office or place of business in any other part of the United Kingdom, and companies which may have returned the required particulars, in course of provisional registration. FREDERIC ROGERS, Registrar of Joint-Stock Companies.

Registry Office, Serjeant's Inn, Nov. 7, 1844.

JOINT-STOCK COMPANIES REGISTRATION ACT.—The ATTENTION OF PERSONS DEALING IN SHARES IN NEWLY-FORMED COMPANIES is called to the following provisions of the 7 & 8 Vic., c. 110, section 65.

Be it enacted, that so much of the provisions of this Act as are applicable to companies formed after the 1st day of November next, shall apply to companies begun or formed since the passing of this Act (5th September, 1844), so far as such provisions shall, on or after the said 1st day of November, be applicable to such mentioned companies. Section 26.

And further, with regard to subscribers and every person entitled, or claiming to be entitled, to any share in any joint-stock company, the formation of which shall be commenced after the 1st day of November, 1844, that until such joint-stock company shall have obtained a certificate of complete registration, and until any such subscriber or person shall have been duly registered as a shareholder in the said registry office, it shall not be lawful for such person to dispose, by sale or mortgage, of such share, or of any interest therein, and that every contract for, or sale or disposal of such share or interest, shall be void, and that every person entering into such contract shall forfeit a sum not exceeding Ten pounds.

ANGLO-MEXICAN MINT OFFICE, 5, Broad-street buildings, London, 21st Nov., 1844.—The shareholders in this company will please to take Notice, that DIVIDENDS of TWELVE SHILLINGS per share on the whole shares, and THREE SHILLINGS per share on the half shares, will be PAYABLE at this office, daily, on and after Monday, the 2d December next.

Claims to be made three clear days previous to payment.—A printed form for making the claims to be obtained on application at the office.

G. B. LONSDALE, Secretary.

COMBMARTIN AND NORTH DEVON MINE.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the above company will be HELD at the Counting house, on the mine, on Wednesday, the 27th day of November inst., at Twelve o'clock noon, to take into consideration the propriety of [illegible] the Ores, which now appears [illegible], when the attendance of all shareholders personally, or by proxy, is particularly requested. By order of the directors.

Dated Nov. 5. WILLIAM NEWTON, Secretary.

PACIFIC STEAM NAVIGATION COMPANY.—Notice is hereby given, that a GENERAL MEETING of the proprietary of this company will be HELD at the company's office, No. [illegible] A, Austinfriars, on Wednesday, December 11, 1844, at Twelve o'clock precisely, for the purpose of receiving a Report of the Directors on the state of the company's affairs, and for Electing Two Directors, in the place of James Nugent Daniell, Esq., and Charles Boggs Price, Esq.; and an Auditor, in the place of George Frederick Hobson, Esq., who go out by rotation, but who, being re-eligible, offer themselves for re-election.

By order of the court,

London, Nov. 20, 1844. WILLIAM TAGGART, Secretary.

ST. JOHN DEL REY COMPANY.—Notice is hereby given, that the FIFTH HALF-YEARLY DIVIDEND, being FIFTEEN SHILLINGS per share on the shares in this company, will be PAID at this office on Thursday, the 5th December next, and any succeeding day, between the hours of Ten and Four.—Forms for claiming the dividend may be obtained at the company's office, and must be left three clear days for examination previous to payment.

8, Tokenhouse yard, Lothbury, Nov. 21, 1844. GEO. D. KEOGH.

IMPORTANT TO PROPRIETORS AND SHAREHOLDERS OF MINES, SMELTERS, &c.

ASSAYS OF LEAD, TIN, COPPER, IRON, GOLD, SILVER, MERCURY, COBALT, MANGANESE, AND ALL OTHER ORES, also Assays of COAL, COKE, &c., as to calorific heating power, are CONDUCTED by Messrs. MITCHELL and FIVLD (late Mr. Mitchell), ASSAYERS and ANALYTICAL CHEMISTS, 14, RAWLEY-ROAD, KENTISH TOWN.

*_* Gentlemen instructed in assaying and all branches of analytical chemistry.

TO ENGINEERS, RAILWAY CONTRACTORS, MINING AGENTS, IRONMASTERS, and OTHERS REQUIRING FINE GREASE for MACHINERY and AXLES of every description.—JOSEPH PERCIVAL'S IMPROVED ANTI-FRICTION GREASE is—[illegible] to be the most useful, [illegible] and best preparation of the kind ever offered to the public.

References to scientific and practical men can be given, and testimonials of its great excellence.—Samples forwarded on application at the manufactory, Green-street, Wellington street, Blackfriars-road, London.

ANDREW SMITH'S PATENT WIRE ROPE, FOR MINING, RAILWAY, and SHIPPING PURPOSES.—The Royal yachts VICTORIA AND ALBERT, PENELOPE, VIRAGO, HERMES, and several other ships in the Royal Navy, as well as the Merchants' Service, have been FITTED WITH ANDREW SMITH'S PATENT WIRE ROPE; it is about half the weight of hempen rope and one-third cheaper.—For particulars apply to A. Smith, [illegible], Princes-street, Leicester square; or at the works, Millwall, Poplar, London.

ICE.—MASTERS' PATENT MACHINE for MAKING ICE, with or without rough ice.—JOHN S. SWEETING, fish and oyster merchant, 159, Cheapside, sole agent, most confidently recommends to his friends and the public this PATENT ICE MACHINE for making ice, ice creams, water ices, &c., which can be done without the aid of ice, in a few minutes, in any climate, at a small expense. To gentlemen not having ice wells, merchants, captains, [illegible], confectioners, &c., it is invaluable.

PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES, AND CLOCKS.—E. J. DENT, 82, Strand, and 33, Cockspur-street, watch and clock maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public that the manufacture of his chronometers, watches, and clocks is secured by three separate patents, respectively granted in 1836, 1840, 1842. [illegible] gold cases, from [illegible] guineas [illegible] 4 gs. to 12 gs. each.—DENT'S PATENT DIPLEIDOSCOPE, or meridian instrument, is now ready for delivery. Pamphlets, containing a description and directions for its use, 1s. each, but to customers gratis.

VESTA or CAMPHINE SPIRIT LAMPS, General Report on, by ANDREW URE, M.D., F.R.S., Professor of Chemistry, &c. October, 1844.—"Having tested a variety of Camphine lamps during the preceding three months, I am convinced the PATENT VESTA LAMP of Mr. YOUNG is not merely the best, but it is the only one hitherto made public which can be used with comfort in closed apartments. [illegible]

W. Young, patentee, 14, Queen-street, Cheapside. [illegible]

TO CAPITALISTS DESIRING PROFITABLE AND SAFE INVESTMENTS.—TO BE LET, on long leases and advantageous terms, SEVERAL COAL-FIELDS, of the best quality, both BITUMINOUS and ANTHRACITE, rich veins of IRON MINE, FIRE CLAY, QUARRIES of STONE, MARBLE, and LIMESTONE, &c.; ELIGIBLE SITUATIONS for establishing MANUFACTORIES of any kind, in many cases with the advantage of water power, and other cheap facilities; a large and newly erected BUILDING, with a STEAM-ENGINE and other MACHINERY, capable of being converted to any use as a manufactory, adjoining a railway, within two miles of a floating dock; a most extensive BITUMINOUS COLLIERY and COAL-FIELD, now working [illegible] tons per diem, and capable of producing twice the quantity, and situated midway between two shipping harbours, each within the distance of two miles.

All the foregoing coal fields and situations have easy communication by railway and canal with the excellent and improving shipping harbours of Llanelly and Pembrey, Carmarthenshire, and are well worth the attention of persons desirous of safe investment of capital. Long leases will be granted, and every facility and accommodation afforded.

For further particulars apply to F. L. Brown, solicitor, Llanelly, Carmarthenshire, or to John Williams, solicitor, [illegible], Verulam-buildings, Gray's Inn, London.

TO GENTLEMEN POSSESSING INFLUENCE IN SOCIETIES, RAILWAYS, OR OTHER PUBLIC COMPANIES.—A SUM of MONEY, proportionable to the eligibility of the situation, will be PAID to any one PROCURING for the ADVERTISER any gentlemanly and permanent EMPLOYMENT in a SOCIETY, RAILWAY, or PUBLIC COMPANY. The party in question is well educated—has been for many years engaged in a highly respectable profession—is possessed of scientific acquirements, especially in chemistry, and has been accustomed to lecture in public—is of an energetic disposition and industrious habits, and can produce unexceptionable references and testimonials as to character and ability for any situation of trust.—Address, "Quoro," Post-office, Exeter. All letters to be pre-paid.

THE PATENT SAFETY FUSE, FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the safest, cheapest, and most expeditious mode of effecting this very hazardous operation. From many testimonies to its usefulness with which the Manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c., &c.:—

"I am very glad to hear that my recommendations have been of any service to you. They have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and D[illegible], Camborne, Cornwall.

SIR W. BURNETT'S PATENT, the CHEAPEST and BEST PROCESS for the PRESERVATION OF TIMBER, CANVASS, CORDAGE, COTTON, WOOLLEN, &c.—LICENSES GRANTED to NOBLEMEN and GENTLEMEN to use the preparation; and to others, for the purposes of trade, on advantageous terms.—Hydraulic apparatus and Tanks, for the expeditious preparation of the above materials, at the principal station, Millwall, Poplar, nearly opposite Greenwich.—Numerous specimens and testimonials may be seen, and every information obtained, at the office, No. 24, King William street, London bridge.

AUSTRALASIAN, COLONIAL AND GENERAL LIFE ASSURANCE AND ANNUITY COMPANY.

Capital £[illegible], in [illegible] shares.

DIRECTORS.

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| Edward Barnard, Esq., F.R.S. | Gideon Colquhoun, Esq. |
| Henry Buckle, Esq. | C. E. Mangles, Esq. |
| Robert Brooks, Esq. | Richard Onslow, Esq. |
| John Henry Capper, Esq. | William Walker, Esq. |

BANKERS—Union Bank of London.

COLONIAL BANKERS—Bank of Australasia (incorporated by Royal Charter, 1835), No. 2, Moorgate-street.

PHYSICIAN—P. Fraser, Esq., M.D., 62, Guildford street, Russell square.

SOLICITORS—Messrs. Mayhew, Pearce, Pearson, and Co.

SECRETARY—Edward Ryley, Esq.

The advantages offered to EMIGRANTS to the Australasian colonies by this company are—First, that no extra premium is charged for residence in any of the Australasian colonies, except in New Zealand. Second, that no extra premium is charged to those who assure for the whole term of life, for one voyage out to the Australasian colonies, and for one return voyage; and that premiums may be paid and claims settled in those colonies. And to all persons who wish to assure their lives, the company offers unusually favourable rates of premium, participation in profits, and the guarantee of an ample subscribed capital.

Prospectuses and full particulars may be had at the offices of the company, No. 126, Bishopsgate street, corner of Cornhill.

NOTICE IS HEREBY GIVEN, that the ACHILLES LIFE ASSURANCE ASSOCIATION has been UNITED with the GREAT BRITAIN MUTUAL LIFE ASSURANCE SOCIETY, and the holders of policies effected with the said Achilles Life Assurance Association are hereby requested to pay the renewal premiums on such policies at the office of the Great Britain Mutual Assurance Society, 14, Waterloo-place, London. E. GILBERTSON, [illegible]

GREAT BRITAIN MUTUAL LIFE ASSURANCE, 14, WATERLOO PLACE, PALL MALL, LONDON.

THE CHISHOLM, Chairman.

WILLIAM MORLEY, Esq., Deputy-Chairman.

GREAT ADVANTAGES OFFERED TO POLICY HOLDERS BY THIS INSTITUTION.

A large and immediate accession of assurances by the transfer of the policies of the "Achilles British and Foreign Life Assurance Association."

The whole of the PROFITS DIVIDED annually among the MEMBERS, after payment of five annual premiums.

An ample guaranteed capital, in addition to the fund continually accumulating from premiums, fully sufficient to afford complete security.

CREDIT given to MEMBERS for half the amount of the first five annual premiums, without security.

CREDIT allowed to MEMBERS for the whole of the first five annual premiums, on satisfactory security being given for their payment.

Transfers of policies effected and registered (without charge) at the office.

Claims on policies not subject to be litigated or disputed, except with the sanction, in each case, of a general meeting of the members.

An extremely low rate of premium, without participation in the profits, but with the option, at any time within five years, of paying the difference between the reduced rates and the mutual assurance rates, and thus becoming members of the society, and entitled to a full participation in the profits.

Extract from the Reduced Scale of Rates, for an assurance of £100.

| Age. | One Year. | Seven Years. | Whole Life. |
|---|---|---|---|
| [illegible] | [illegible] | [illegible] | [illegible] |

Full particulars are detailed in the prospectus.

A. R. IRVINE, Managing Director.

PRACTICAL TUNNELLING.

Just published, with Twelve Copperplates and Forty-six Wood Engravings, price One Guinea, a new work on

PRACTICAL TUNNELLING, explaining in detail the setting out, the construction, and cost of such works.

By F. W. SIMMS, F.R.A.S., F.G.S., M. Inst. C.E., &c.

Sold by Messrs. Troughton and Simms, 136, Fleet-street; and Messrs. Simpkin, Marshall, and Co., London.

May be had at Weale's Architectural Library, Holborn, and Taylor's [illegible], Wellington street, Strand; and of all booksellers in town and country, price [illegible].

INSTRUCTIONS.—ASPHALTE OF SEYSSEL.—Just published, with Coloured Engravings, full and plain instructions for [illegible] this valuable mineral production.

Miller and Field, publishers, [illegible] bridge road, London.

*_* [illegible]

FOR EXPORTATION.

TO MERCHANTS, SHIPPERS, AND COLONIAL AGENTS.

The DIRECTORS of the SEYSSEL ASPHALTE COMPANY are prepared to [illegible] [illegible]

[illegible], Seyssel Asphalte Depot, London.

## SUPPLY OF PURE WATER TO THE METROPOLIS AND ITS SUBURBS—PROPOSED NEW COMPANY—No. IV.

Taking into consideration the various circumstances to which we have adverted, together with the detail of evidence taken at various periods before the several committees of both Houses of Parliament, by which they are proved and illustrated, and also the facts that have been brought before us by medical witnesses in support of their strongly-urged and unanimous opinion, that no population can be healthy which live upon, and derive their supply of an indispensable article of consumption from a source impregnated with the refuse of cesspools, and decomposed animal and vegetable matter, that the deficiency and impurities of the supplies of water in districts inhabited by a thickly-peopled population must generate uncleanliness, a low state of health, and extensive disease amongst the lower classes—we may state that experience would prove the advantages in household and personal cleanliness in health, if the existing monopoly to which those defects are attributed were superseded by improvements effected for the extension of the supplies of a cheap, pure, and salubrious water, into the houses of a class who are debarred from participation in the advantages of an element of Nature, by the restrictive and simultaneous confederacy of a compact entered into by those local companies on the south side of the metropolis. We may affirm, from evidence derived from our own observation and experience, that a stream of water which receives daily the ablutions and evacuations of two millions of human beings, of many thousand animals, with all the filth and refuse of the various offensive manufactures, which, of necessity, must be carried on in one of the most populated cities of Europe, cannot be required to be analysed, whether it ought to be pumped up as a beverage for the inhabitants of the metropolis of the British empire. The question is not whether a few grains of this immeasurable filth can, by chemical process, be extracted from a given quantity of water, but whether, without any process at all, this stream, palpably known to contain all this mass of filth, should continue to be supplied to the inhabitants of London. Self-evident, however, as this truism appears to be, it is nevertheless the fact, that the water of the Thames was analysed by persons whose practical skill, united to scientific acquirements, enabled them to ascertain its real qualities by actual experiment. The water thus obtained from the Thames was taken not only from different parts of the river, but at various depths and state of the tides, as well as in different temperatures. Hence it must be evident, that every precaution tending to evince accuracy, and to prevent mistake, was carefully adopted, so that nothing might be left to supposition and conjecture. An analysis of the water had been made by several individuals of high authority on these matters, including Dr. William Lambe, Dr. Pearson, and Mr. Richard Phillips; still it was considered necessary, in order to insure accurate information, and to draw satisfactory conclusions, to subject the waters to the examination of Dr. Bostock—a gentleman eminently qualified for the task, by his extensive knowledge of chemistry, and his practical experience in this department of analysis, and was selected on the part of the Crown to analyse the specimens of water taken from different sources during the late Mr. Telford's inquiry, to ascertain how far the water of the Thames, contiguous to, or in the neighbourhood of, London, was in a state proper for being employed in diet and various other domestic purposes. The effect of the chemical analysis was, the discovery of extraneous matter of a poisonous nature, and other substances in great abundance, most deleterious to health, and unfit for domestic purposes, the result of which experiments were given in evidence before the committee of the House of Commons, 1834. The general conclusions he adduces from the whole series of analyses are expressed in the following passages, condensed from his report to the Commissioners on supply of water to the metropolis, 1828:—"By a simple inspection of the specimens, I think myself warranted in asserting, without any reference to experiment, that in all the waters the extraneous matter was so considerable, as to render them improper to be employed for diet; it contained a considerable number of floating masses, fibres, films, &c.; it was slightly opaque, and of a brown tinge, distinct smell of tar, acerbic taste, and the odour, which may be characterised as like that which exists in water which has had decayed wood macerated in it. The real quantity of ponderable matter that was suspended in the water was found very difficult to obtain in a separate state by means of the filter. I adopted the method of subsidence, and obtained a quantity which contained nearly all the extraneous matter. During the evaporation, a nauseous odour was emitted from the fluid, which may be described as resembling the smell which proceeds from foul drains; when the evaporation was completed, a dark grey heterogeneous mass was obtained, which exactly resembled dried street mud." The impurity and insalubrity of the water, as supplied by the confederated companies, it is submitted, is placed beyond the possibility of a doubt—for, on the south side of the river, Dr. Bostock reports that samples taken in the neighbourhood of the works of the Southwark, Lambeth, and Vauxhall Companies, exhibits water loaded with extraneous matter, unpleasant odour, decidedly woody taste, and the flavour of stagnant water. And again—"I completed my experiments by specimens taken at low water, about 100 yards below Southwark-bridge, in the middle of the river, and at the Dolphin of the Lambeth Works, above Waterloo-bridge. The specimens were all opaque and discoloured; they contained a considerable quantity of black sediment, fibry and flocculent matter, and exhaling a highly fetid odour." The experiments also of Dr. William Lambe and Dr. Thomson are clear that the Thames water holds animal and vegetable matter in solution, which would not be got rid of by filtration, and would accumulate in the vessel from which the water evaporates, and thus an injurious impregnation would be given to soups, tea, coffee, and all other liquids drunk in the house, which has not undergone fermentation, and this mischief would be increased if the water added to the boiler be not previously filtered, for then all the suspended impurities would be in addition to those held in solution, and by repeated introduction into the stomach, the injurious impurities would undermine the health. It is self-evident, therefore, that a constant and efficient supply of pure and wholesome water is essential to health and comfort, and it is manifest that the general quality of the water is foul and objectionable within the whole range of the London district whence the supplies for the metropolis are drawn; [illegible]

[illegible]

to be used as such, for all culinary and domestic purposes. That the large population of 230,000 inhabitants located in the southern districts of the metropolis, should in this way be supplied with a necessary element of life, and then be told, that "they were never better supplied, both as regards quantity and quality, than they are at the present moment, and that such water has never yet been equalled, or even approached, in ancient or modern times," is, we submit, a gross fallacy. To every person who has witnessed the slow progress of filtration, the notion of cleansing daily more than 3,000,000 gallons of water, which has been declared by eminent professional men to be a filthy fluid, "loaded with decayed animal and vegetable matter and other substances equally deleterious to health, and unfit for domestic purposes," carries its own absurdity along with it. It is physically impossible for the existing companies to obtain a space of reservoirs sufficient even to allow this impurity to subside from settlement alone, much less to filtrate nearly 6,000,000 gallons every day; and will the British Parliament, with the example of Paris, London, Edinburgh, and other large cities before their eyes, longer submit to hear of the gross fallacy of analysing the diluted evacuations of 2,000,000 of human beings, and the refuse of our manufactories, in order to judge of the expediency of continuing it our daily beverage. Water impregnated with ammoniacal, and other substances equally deleterious to health or comfort, or sanction the mutual compact agreed upon by the several water companies on the south side of the Thames, who have partitioned the districts between them, and established a close monopoly of an element of nature, thereby limiting the privileges of a large class of consumers in a densely peopled district, from the right of taking their supply from a source by which they could obtain water, in a pure and salubrious state, at the moderate rate of ¼d. per hogshead, of sixty three gallons. I admit the justice, that the three local companies have been at great expense in making reservoirs, but which in no way can tend in the slightest degree to the filtration of the Thames water, as is alleged by them; they may assist in permitting the dense impurities of the water to subside, but can in no way extract those poisonous qualities which the Thames water holds in solution.

## RAILWAY ENGINEERING—TUNNELLING.*

After the great experience acquired in tunnelling within the last twenty years, through every description of strata, a practically descriptive work like that of Mr. F. W. Simms must be highly acceptable to the profession, particularly to its junior members, and to contractors, who have not had much experience in the construction of such works. The author has, as much as possible, avoided all theoretical speculation on the subject, and the work is devoted to the practical details of the works of the Bletchingley and Saltwood Tunnels, which were constructed under his charge—the amount of labour consumed, and the prices paid for it, as well as every description of material; and, although these must differ in almost every locality, and that of labour particularly through localities in which the primitive rocks abound, the actual cost in the cases under consideration must prove most useful information.

As further remarks must be unnecessary to prove the value of the work, we shall proceed at once to give a short abstract of its general features.

Beginning with the geological features of the South-Eastern Railway, the author traces its construction, commencing at the metropolis, through the London clay to New-cross, where the plastic clay appears at the bottom of the slopes of an open cutting; this plastic clay formation at this locality is interesting, as in a thickness of only 4 ft. 4 in. there are no less than thirteen lines of strata, consisting of varieties of clays and sands, and one of lignite half an inch in thickness. The line then continues upon the plastic clay formation to Combe-lane, Croydon, where the chalk crops out; it then crosses the great chalk range towards the escarpment at Merstham, the tunnel under which place is its greatest summit level; here the green sand formation appears, and near the village the gault is seen further south; the lower green sand rises to the surface in beds of fawn coloured sand, very siliceous and good for engineering purposes. The middle beds next appear, and these are followed by the lowest beds, in which are the Kentish ragstone, fuller's earth, &c., the famous Nutfield Pits being situated in this locality; these lower beds rise to a considerable height, and form the range of sand hills which pass through the country parallel to the great chalk range. The place where the line crosses the sand range is called Redstone Hill, and here the Brighton line continues southward, while the Dover passes round the hill with a curve of half a mile radius to the eastward, and at a place called Robert's Hole Farm the weald clay next appears from beneath the sand; it then passes in successive cuttings and embankments through the weald clay for many miles, and the Bletchingley Tunnel at Tilburstow Hill, to Ashford, where it again enters the green sand formation, in which it continues for fifteen miles to Folkestone, where it enters the chalk by a tunnel through the hill to the Warren, and from thence to Dover through and along the face of the cliffs, altogether one of the greatest works in the kingdom, and where Mr. Cubitt so successfully introduced gunpowder in removing large masses of chalk, particularly at the Round Down.

The author then proceeds to notice the formation of the Bletchingley Tunnel. The blue clay of the weald was at first greasy to the touch, and when dry was a hard shale, requiring much gunpowder in its excavation, but upon exposure to atmospheric action crumbled considerably and slaked; by this reason the work was obliged to be closed, poled quite down to the lower sill; the pressure often threatened to burst in the lengths after complete finishing, and required constant watchfulness; invert ... fourteen or fifteen inches thick, were often crushed and broken, as if they had been mere sticks. The monthly progress of the actual tunnelling after the sinking of the shafts was as follows:—May 106 yards, June 132 yards, July 164 yards, and August 100 yards; the bricks were made on the ground and wheeled to the pit's mouth, where the cost, including waste, was 2l. 1s. 6d. per 1000; the whole cost of the work was 66,000l. 17s., or 71l. 10s. 3d. per lineal yard, it being 1324 yards long, or three quarters of a mile and four yards.

Saltwood Tunnel is also situated in the parish from which it takes its name, and is 954 yards in length, and inclines towards Dover at the rate of twenty feet per mile, or 1 in 264; it is constructed at the top of the middle beds of the lower green sand, at about ... feet from the surface of the ground. The difficulties in sinking the shafts, which were nine feet in diameter, from the great quantities of water, were very great; the ground became a perfect quicksand, the miners were obliged to be relieved in four shifts, and the horses were so knocked up from the incessant labour, and several having died, great difficulty was found in keeping a supply. At length, the board of directors contracted with Messrs. Grissell and Peto to complete the tunnel for 60,000l., exclusive of the entrances, they allowing the company [illegible] for the plant and materials; the preliminary works, which had cost the company so much, of course were highly advantageous to the contractors, and greatly facilitated the work; its entire cost was 112,000l. [illegible], or [illegible] per lineal yard. The bricks were made at Folkestone, five miles distant, and cost 2l. 11s. per 1000.

The work then proceeds to describe the observatory and transit instrument, with directions for its use, the setting out the shafts, ranging the head lines, with the various modes of sinking and working the shafts, which of course we cannot follow. Some experiments on horse-power are interesting—for instance, at the Saltwood Tunnel, the following [illegible]

The remaining chapters of the work describe the methods of securing the tunnels while driving, the culverts, &c., with valuable tabular matter, showing the cost of such culvert, amount of labour by men and horses, and concludes with Sir John Rennie's Report on Highgate Archway in 1811, which, though short, is an interesting document, as showing the great advance which has taken place in the science of tunnelling within the past thirty years. The work contains forty six wood cuts, and twelve beautifully executed plates, the paper and type being very superior; and the author has omitted nothing which could render the work of the utmost advantage to those for whose use it is intended.

* Practical Tunnelling, explaining in detail the setting-out of the works, shafts, &c., by F. W. Simms, Esq., C.E., F.R.A.S., F.G.S., and M.I.C.E. London: [illegible]

## ACCIDENTS IN MINES AND COLLIERIES.

*From Jan. 1 to June 30, 1844—as reported in the Mining Journal.*

| 1844. | Name of Mine. | Nature of Accident. | Fatal. | Injured |
|---|---|---|---|---|
| Jan. 6 | Mount's Colliery | Do. do. | 13 | 3 |
| | Clewlow Moor | Explosion of gas | 1 | 2 |
| | Wardley-lane End | Do. do. | 3 | 10 |
| | George Pit | Fall of a rope while ascending pit | 1 | – |
| | Shelton Colliery | Crushed by a tub | 1 | – |
| | Dowlais | Fall of a stone | 2 | – |
| | Cyfarthfa Mine | Do. do. | 1 | – |
| 13 | Pontypridd Colliery | Explosion of gas | – | 8 |
| | Llanelly | Cause not assigned | 1 | – |
| | Alexander Pit | Fall of coal | 1 | – |
| | St. David's Colliery | Do. | 1 | – |
| | Hensley Woodhouse | Drowned in pit | 1 | – |
| | Pemberton Pit | Breakage of rope | 2 | – |
| | Flowery Field Colliery | Explosion of gas | – | 6 |
| 20 | Crump Meadow Colliery | Fall of a stone | 1 | – |
| | Shelton Moor Colliery | Accident | – | 1 |
| | Wh. Providence Mine | Do. by handle of windlass | 1 | – |
| | Kingswinford | Fall of coal | 1 | – |
| | Croft Pit, Whitehaven | Fall in shaft | 3 | – |
| | Duke Pit, do. | Explosion of fire damp | 11 | – |
| 27 | Pencilewid | Fall in pit | 1 | – |
| | Coventry | Do. | 1 | – |
| | Longfield | Fall of a stone | 1 | – |
| | Delabole Slate Quarry | Fall of rock | 2 | – |
| | Penydarren | Fall of stone | 2 | – |
| | Aberdare | Fall in pit | 1 | – |
| | Dudfryn Colliery | Do. | 1 | – |
| | Killingworth Colliery | Explosion of fire damp | – | 6 |
| | Mount Mine, St. Blazey | Fall in pit | 1 | – |
| Feb. 3 | St. Helens | Fall of coal | 1 | – |
| | St. Helens, Auckland | Do. | 1 | – |
| | Cleland, near Holytown | Fall in shaft | 1 | – |
| | Shetland Pit | Do. | 1 | – |
| | Levant Mine | Do. | – | 1 |
| | Darnal | Fall of coal and fall in shaft | – | 2 |
| 10 | Maesteg Colliery | Fall of a stone | 1 | – |
| | Hetton-le-Hole | Do. | 1 | – |
| | Tavistock | Accident by engine | 1 | – |
| | Matlock-bridge | Fall in shaft | – | 1 |
| | Preston's Colliery | Accident | 1 | – |
| 17 | Dowlais | Fall of coal and rubbish | 1 | – |
| | Botallack Mine | Fall of a stone | – | 1 |
| | Pensbwick | Fall of marl | 1 | – |
| | Coalbro | Accident | 1 | – |
| | Cwmllynfell Colliery | Fall in pit by chain breaking | 1 | – |
| | Kilmarnock Colliery | Accident | 1 | – |
| | Stonetrough Colliery | Fall of rubbish | – | 1 |
| 24 | Landshipping Colliery | Breaking in of a river | 41 | * |
| | Billinge, St. Helens | Fall in shaft | 2 | – |
| | St. Hilda Pit | Accident | 1 | – |
| | West Cromford Colliery | Drowned | 1 | – |
| | Hirwain Iron-works | Accident | 2 | – |
| | Carnbrea | Fall of a stone | 1 | – |
| | Cyfarthfa Iron-works | Accident | 1 | – |
| | Rowley Regis | Explosion of foul air | 1 | – |
| | Dudley Port | Explosion of gunpowder | 1 | – |
| | Poldice Mine | Accident by whim | 1 | – |
| March 3 | Holmbush Mine | Fall of rubbish | 1 | 1 |
| | Wingate Grange Coll. | Fall in staple | 1 | – |
| | Hawkins Mine, Holywell | Fall in shaft | 1 | – |
| | Bransty Colliery | Accident | 4 | – |
| | Dukinfield Colliery | Fall of roof | 1 | – |
| 9 | Poynton and Worth Col. | Fall in pit | 3 | – |
| | Plymouth Iron-works | Accident by rails | 1 | – |
| | Penydarren | Fall of coal | – | 1 |
| | Wigan | Accident | 1 | – |
| | Crich, Derbyshire | Accident from blasting | – | 2 |
| | Grove Colliery | Explosion of fire damp | 1 | 2 |
| 16 | United Hills Mine | Accident from blasting | 1 | 1 |
| | Treasvean Mine | Fall of roof | 1 | – |
| | Middleton-in-Teesdale | Drowned | 2 | – |
| | Pentyrch Iron-works | Fall of a stone and rubbish | 1 | – |
| 23 | Cramlington Colliery | By being drawn over the pulley | 3 | 1 |
| | Hardenhe Mine | Accident from blasting | – | 2 |
| | Magpie Mine | Fall in mine | – | 1 |
| | Great Newton | Accident | 1 | – |
| 30 | Cinderhill | Fall of roof | – | 1 |
| | Cyfarthfa Iron-works | Fall of earth | 1 | – |
| | Middle Bank Cop.-works | Fall of a wheelbarrow | – | 1 |
| | Plymouth Iron-works | Explosion of fire damp | 1 | – |
| | Nantyglo | Fall in pit | 4 | 2 |
| | Spotland, near Rochdale | Accident | – | 2 |
| April 6 | Shawbottewell Colliery | Accident by engine | – | 1 |
| | Shelton Pit, Haswell | Fall of a stone | 1 | – |
| | Tresavean Consols | Fall from a ladder | 1 | – |
| | Plymouth Iron-works | Accident while at work | 1 | – |
| | St. Ives Consols Mine | Fall of rubbish | 1 | – |
| | Wheal Vyvyan | Accident by blasting | – | 2 |
| | Broughton, Lancashire | Explosion of fire damp | 1 | – |
| | Bredbury, Stockport | Do. do. | – | 1 |
| 13 | Harbour House Colliery | Fall of coal | – | – |
| | Dukinfield, Cheshire | Accident | 1 | – |
| | Monmouthshire | Blow from a coal basket | 1 | – |
| | Glasgow | Fall of roof | 1 | – |
| | Cumberland Colliery | By the upsetting of a tender | 1 | 1 |
| | East Wheal Rose | Accident by a piece of timber | 1 | – |
| | Tretheliau Mine | Accident while at work | 1 | – |
| | Moorbole Pits, Moxley | Blow of a stone | – | 1 |
| 20 | Tondu Iron Works | Burst | 1 | – |
| | Lord Bradford's Colliery | Fall in pit and fall of a brick | 2 | – |
| | Dowlais | Bursting of a boiler | 2 | 2 |
| | Plymouth Works | Explosion of fire damp | 2 | – |
| 27 | Flowery Field Colliery | Explosion of damp | 1 | – |
| | Englefield, Holywell | Do. do. | – | 10 |
| | Cwm Quarry | Accident by an engine | 1 | – |
| | Cyfarthfa | Explosion of fire damp | – | 2 |
| May 4 | Lamb Hill Pit | Fall of coal | – | 1 |
| | Marton Colliery | Accident by cage | – | 1 |
| | Cyfarthfa Works | Fall of rubbish | 1 | – |
| | Nantyglo | Fall of a stone | 1 | – |
| | Friars' Goose | Fall of roof | 1 | 2 |
| | Clarway Colliery | Fall in pit | 1 | – |
| 11 | Wheal Penrose Mine | Fall in shaft | 1 | – |
| | West Caradon Mine | Fall in pit | 2 | 2 |
| | Worsley Park Colliery | Fall of coal | 1 | – |
| 18 | Clevedon Colliery | Fall in shaft | 1 | – |
| | Upper Gornal | Do. | 1 | – |
| | Victoria Pit, Rowton | Explosion of fire damp | 2 | 2 |
| | Four foot Pit | Accident | 1 | – |
| | Jane Pit, Hetton Coll. | Fall of rubbish | 1 | 1 |
| | William Pit, Whitehaven | Explosion of fire damp | – | 1 |
| | Blackbrook Colliery | Fall of coal | 2 | – |
| | Wheal Gerry Mine | Hole fired in tamping | 1 | 1 |
| | Delabole Slate Quarry | Fall of a stone | 1 | – |
| | Brewery Colliery | Fall of roof | 1 | – |
| 25 | Pontypool | Fall of coal | 1 | – |
| | Dowlais | Do. | 1 | – |
| | Ebbw Vale, near Cwmbran | Hole fired in tamping | 1 | – |
| | Chestnut Pit, Patton | Fall of roof | – | 1 |
| | Broomhead Colliery | Breaking of chain | 2 | 1 |
| | William Pit, Whitehaven | Fall of roof | – | 1 |
| | Sandyvale Iron-works | Explosion of fire damp | 2 | – |
| June 1 | South Wh. Basset | Blasting | 1 | – |
| | Wheal Andrew | Fall from ladder | 1 | – |
| | South Roskear | Explosion of a hole | 1 | – |
| 15 | Polberro Consols | By machinery | 1 | – |
| | Pontypwoods Colliery | Explosion of fire damp | 1 | – |
| | Great Wren Pit | Fall of rock | 1 | – |
| | South Wheal Towan | Explosion of a boiler | – | 1 |
| | Worsley, Wigan | Breaking of a rope | 2 | – |
| | Chapman Pit, Whitehaven | Fall of a stone | – | 1 |
| 22 | Close on Post Colliery | Explosion of fire damp | 2 | 18 |
| | Hutchinson on Post | Do. do. | 1 | – |
| | Fortescue Mine | Hole fired in tamping | 1 | – |
| 29 | Wrexham | Accident by waggon | – | 1 |

* Several injured.

[To be concluded in our next.]

Air Governor.—There is now in the collection of useful inventions in the gallery of the Royal Polytechnic Institution, a model of a [illegible] invented by Mr. Joseph Brown, of the Minories, [illegible]

## THE CORNWALL COMPETING LINES.

[FROM A CORRESPONDENT.]

Last week we referred to two lines through Cornwall, but in this age of brilliant enterprise we must not be surprised at any effort, however extraordinary. Another line, making the third, is presented—or, we presume, from the notice in the *Gazette*, is to be presented, to the public, of "a Central line through the north of Devon and Cornwall," in conjunction, too, with the Great Western!—not that the Great Western has presumed to have anything to do with it, but it will most fraternally embrace the Great Western. We understand, however (which we were not before aware of), that the mines in Cornwall are so rich, that it will require, in future, three railways to take the adventurers to and fro, and bring up the superabundant capital realised by them in their profitable speculations. Nothing else, certainly, can justify these schemes, for such a country and such a population as is to be found in North Devon and Central Cornwall. The public have been entertained, too, with some amusing correspondence on the subject; somebody said, and all Cornwall believed, that the banking firm just reared upon the ruins of the Western District Banking Company, consisting of Messrs. Ricketts, Turner, and Co., was to advance 500,000*l.* towards the Central line. Mr. Ricketts says this has no foundation, and he never knew anything about it; the partners may play pitch and toss with their sovereigns, of course no one can prevent them, but Mr. Ricketts will not be one of the party—so there, after all these fine expectations, the matter ends in smoke.

Next, the South-Western Company sail, or allowed Mr. Snow to say, great things at the public meetings in Cornwall, and evidently it is everywhere whispered that the tyrannical conduct of the Great Western must not be tolerated in Cornwall, and the only liberal men deserving encouragement are the directors of the South-Western Railway—the centralists, contemning the offer of 250,000*l.* subscribed by those companies who are interested in taking a line through Cornwall, and form a coalition with a company whose chief prosperity is derived from Falmouth's rival port, Southampton. Well, some thought the South-Western were at last going about their work with some energy, and we should see the tables turned upon the Great Western—that they would drive the Great Western, Bristol and Exeter, and South Devon out of the field, and into the sea, and carry the west country before them.

Lines innumerable in that direction were planned, and what is the upshot? that by this notice they mean, on the 7th of next month, to meet and talk about certain extensions contemplated next year, but not a sentence is breathed of any line west of Yeovil, whilst having fanned the county of Cornwall into a flame of discord, they abandon the centralists to their bitter fate, and hope they have accomplished their object, for this year at least, if not altogether, that of preventing a railway through the county of Cornwall at all.

With these two facts—undeniable facts—will any more money be raised for Cornish lines? will there be found persons foolish enough to contribute to the amusing employment afforded to lawyers, engineers, and allotment letter traffickers? We should hope not—let them wait a little; one line has already hooked up the capital—see how that line gets on, ascertain what the Board of Trade means to do. Money spent in a Parliamentary contest cannot be got back again, and if any one will take advice, it is freely offered, "keep your pockets buttoned."

[Although the Editorial we is adopted, it must be understood that the remarks are those of "a correspondent" from manuscript, and therefore we must not be held responsible for the opinions of others. We deem it necessary to say thus much, as a correspondent in our present Number, "One of Them," would imply that the remarks of last week were Editorial.]

## THE CORNWALL RAILWAYS.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—I perceive in your *Journal* of last week a letter from Mr. Robert Walker Childs, one of the candidates for the secretaryship of the Plymouth and Falmouth Railway, to which he states—"It is simply untrue that I ever canvassed the county for shares at 2*s.* 6*d.* each, as asserted by Mr. Tilly." I have not the pleasure of knowing Mr. R. W. Childs, and I have never used his name in any other way than by reading at different public meetings his appointment to canvass the county, the original of which, under the hand of "P. P. Smith, Secretary *pro tem.*," a friend of mine will show you, and which will prevent any further quibbling on the subject." The following is a copy:—"Resolved, that Messrs. Carthew, Childs, and Hunt, be authorised immediately to commence a canvass of the county for subscriptions, dividing the county into three districts. The remuneration to be 2*s.* 6*d.* on each share of 50*l.*, which may be allotted to the party taking the same, and upon which the deposit shall be paid."

Mr. Childs will not now repeat, that he did not canvass the county for shares, and that, too, under the above appointment. This very "simple denial" will, I think, hardly help him to the secretaryship. But not even the gallant handiwork of Mr. Childs can save the Cornwall, Plymouth, and Falmouth Railway from its inevitable fate—inglorious and deserved defeat. Unanimously scouted by the county at public meetings held in almost every principal town, Falmouth, Penryn, Redruth, St. Columb, Wadebridge, Padstow, Bodmin, Helston, Truro, and Penzance, and by the county of Devon at the Guildhall, at Exeter, where none of its "disinterested" supporters, its "leading men," dared to show their faces, or question a statement made. It has been driven to its last shift, and certain officers of that dismal project (friends it has none) have goaded themselves of the press, to obtain the advantage of a week's misrepresentation, although they must have felt certain that the next would bring exposure and retaliation.

"The twenty-four tunnels"—"the fertilising committee"—the "almost conviction" of one, that "the Central Line would barely pay the working expenses," a statement so monstrous, and so directly in the teeth of his previous advocacy of a Central Line, as to lead his personal friends, for the protection of his character, to declare their belief that the letter in the *Times*, with his signature, was a forgery—the equally honest, but ridiculing, conviction of his colleague, that this line would only pay 4*l.* per cent.—the "artful dodge" got up last week, of forbidding Mr. Frederick Ricketts to deny that he had authorised a statement which had come here much hot by themselves, and that for an obvious purpose;—these and other misrepresentations have so disgusted some honourable members of state that declining provisional committee, as to induce them to withdraw, and to "sicken" others, who, merely on "a point of honour," yet permit the use and influence of their names.

The communication "From a Correspondent" in your *Journal*, soon, contains not a few specimens of the present malicious, but very feeble, mode of attack, and sufficiently shows the weakness of the cause which requires such desperate, but despicable, efforts to maintain a struggling existence—*Quem Deus vult perdere prius dementat.* I am, Sir, your obedient servant,

Penzance, Nov. 19. T. HARRY TILLY.

## CORNWALL AND DEVON CENTRAL RAILWAY, AND BRISTOL AND EXETER RAILWAY COMPANY.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—An advertisement appeared in the *Times* of this last, headed "Bristol and Exeter Railway Company," which is authenticated by the signature of the secretary (Mr. Badham), and is to the following words:—

"In consequence of statements which have been made at public meetings in the county of Cornwall, and elsewhere, and in some of the newspapers, that the chairman of the Bristol Railway Company (Frederick Ricketts, Esq.) has given his personal support to the Central Cornwall Railway, in opposition to the Cornwall Railway from Plymouth to Falmouth (which since time has the undivided support of the Bristol and Exeter, the Great Western, the Bristol and Gloucester, and the South Devon Companies, of all which he is a director), and that the banking firm in Cornwall of which Mr. Ricketts is the head has engaged to make a large advance of money to the Central Line, I am directed to publish the two following letters, by which it will be seen that those statements were altogether unauthorised by Mr. Ricketts, and that he continues to be chairman of the Bristol and Exeter Company.

By order of the directors, J. P. BADHAM, Secretary.

Bristol Office, 30, Broad street, Nov. 13."

Having been present at, and taken part in, most of the public meetings held in Cornwall on the question of the Central Railway, and having attended as a deputation the meetings held "elsewhere" (viz., at Bideford and Exeter), I can give the most unqualified contradiction to the assertion, that at such meetings it was stated that "Frederick Ricketts, Esq., had given his personal support to the Central Cornwall Railway, in opposition to the Cornwall Railway from Plymouth to Falmouth"—for on every such occasion it was distinctly announced that Mr. Ricketts was in no way connected with the Central Railway, although his partners in the bank in Cornwall, Messrs. Turner, Rashleigh, Martin, and Tyndall, were all satisfied of the practicability of the project. This I have repeatedly affirmed, and the same statement has invariably been made by the other gentlemen with whom I have been associated in this undertaking; so far, therefore, from such representations having been made, as alleged, gentlemen have been taken to participate in an undertaking, to which the support of the parties might otherwise have led. At the great and influential meeting held at Exeter, on the 3d inst., which I had the honour of addressing, there were present the representatives of three of the associated companies—Mr. Saunders, the secretary of the Great Western; Mr. Badham, the secretary of the Bristol and Exeter; and Mr. Gillespie, the secretary of the South Devon Railway—besides directors and shareholders to some of these companies. I can state positively, whatever at that meeting it was asserted that "Mr. Ricketts had given his personal support to the Central Cornwall Railway," or whether that gentleman was by implication excepted from all connection with it? I appeal to the gentlemen, and to every gentleman present at that meeting, for such qualification to the assertions which I give to such a statement. I distinctly remember saying at that meeting—"Gentlemen, if I may state my belief, everyone" (the Mr. Saunders, Mr. Badham, or Mr. Gillespie, mentioned in questions and observations of mine? Had I made such a statement as is insinuated in the advertisement signed by Mr. Badham, could that gentleman have permitted himself to become an aspersing party by remaining silent? The publication of the advertisement in question furnishes evidence of the peculiar means resorted to to serve a temporary purpose, and to assail indirectly the character of a most honourable man, merely because his partners in a banking company venture to act upon their own judgments, and to identify themselves with an undertaking calculated to benefit that county in the prosperity of which they had become deeply interested. With respect to the offer by them of a sum of money towards the construction of the Central Railway, I apprehend Mr. Turner's statement at Truro will be found sufficiently explicit, and that the advertisement can hardly be expected to obliterate a fact.

I would suggest to the Great Western Company the propriety of consulting the county of Cornwall on the subject of a Cornish Railway, instead of deluding themselves into the belief, that, against the expressed determination of that county, united as it is in favour of a Central Line, they can succeed in carrying out the Coast Line, a project calculated to be beneficial only to the private interests of associated companies, and obviously detrimental to the public good. I am, Sir, your obedient servant, THOMAS HARVEY.

Secretary of the Cornwall and Devon Central Railway.

5, John Street, *Adelphi*, Nov. 18.

## THE RIVAL RAILWAYS IN CORNWALL.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—The remarks in the *Journal* of the 10th instant, in reference to the two proposed lines of railway in Cornwall, and which you give as "From a Correspondent," may more reasonably be taken as coming from the Editor, in consequence of the frequent introduction of the pronoun "we." Be this how it may, they are evidently produced with the intention of injuring the central line, by an attempt to throw ridicule upon the undertaking, and upon those who have come forward in support of it.

Whether the parties who have interested themselves in the central line commenced their proceedings without "any delegated authority"—whether the members of the provisional committee are men "without standing, interest, or influence in the county"—or whether they fancied that "all who had gone before them were incompetent," I will not stop to inquire. Where matters of fact may be produced in order to disprove the propriety of such an undertaking being persevered in, there can be no occasion to make use of misrepresentation for the purpose; nor is it worth while to attempt a contradiction of such vague and undefined insinuations as are contained in the remarks to which I refer. Where, however, a positive assertion is made, a positive contradiction may be given, and which I do give to the statement, that Captain Plumridge has adopted the alternative of resigning his seat in preference to putting his name in the list of the committee; he having consented to become a member of the committee, and in doing so, he expressed his conviction that a central line will be the best for the county.

There is not a part of the kingdom in which the proper and most generally beneficial line for a railway is pointed out so clearly as in Cornwall. It is a long strip of land; and the traffic of the county being insufficient to support two lines, it will naturally be inferred that one line through the centre would best suit the inhabitants of all districts; unless their could be pointed out, beyond a doubt, that the carrying it through a district on one side of the county, to the entire exclusion of its benefits from the inhabitants of the other and more distant parts, would be attended with the greatest advantage to those concerned in its construction. It is a question, also, for the decision of the inhabitants; it has nothing to do with districts beyond the extremity of the county, west, south, or south of it, there being none; it is perfectly insulated, and can only be made useful to the parties residing in the county; at least, it may be viewed in that light in regard to the western extremity of it, and the question of the greatest importance to be decided, is, as to its extension eastward.

It is true that for four years efforts were made by the leading and more influential gentlemen in the county to get a railway made throught it, that a "feasible" plan had been struck out for accomplishing it, and that that plan was the southern line between Falmouth and Plymouth; but it was adopted at the time because the means could not be found for constructing the central line, which was admitted by all parties to be the best adapted to the purpose.

This was adopted as a matter of necessity, and it was facilitated by the adoption of a line to be made between Exeter and Plymouth. Subsequently, things took a turn in favour of the central line, and those who are the most interested in having a railway carried through the county—that is, the inhabitants—have come forward almost unanimously in favour and support of the central line, because it suits their purpose best, and they certainly are the best judges of what they require. One of the leading features which stimulated the inhabitants to push the formation of the railway, was a hope and an expectation that the packet station may be re-established at Falmouth (the object of the South-Western Railway Company in joining this central line being, you say, to prevent the removal of the packets from Southampton); and if anything would lead to the fulfilment of this expectation, it could only be effected by using the most expeditious means of transporting the mails from Falmouth to London. The adoption of the central line will be a saving of fifty miles in the distance, when compared with the south line. Here, then, is one very important object in favour of the central line. Much stress has been laid upon the assertion that the south line will connect Falmouth and the western part of the county with Plymouth, more readily than the central line will do. If Plymouth were the chief object of the introduction of the railway, there might be some excuse for bringing forward this argument, although even then it would not be founded upon fact; but this is a part of the question of a very minor importance, when compared with the other considerations upon which the question rests. The great benefit derived from the establishment of railways is to bring the most distant parts as near to each other, as to time, as possible; the gain to short distances is a mere bagatelle, although it will be advisable to keep up a communication between the intermediate places also, as affording to all parties the means of reaching the most distant ones. You say that Cornwall is generally supplied from the large manufactories at Plymouth. Will you inform us of what they consist? I know of but one of any importance, which is a soap factory. Perhaps your correspondent is anticipating the establishment of baths and washing-houses for the poor in the county, and that the demand for soap will increase. But, for the sake of argument, we will suppose that there is a great amount of business carried on between Plymouth and Cornwall; would the establishment of the south line afford any kind of facility in conducting it? There will be a line carried from Plymouth to Launceston through Tavistock to meet the central line. The distance from Falmouth to Plymouth, by way of Launceston, will be, by the central line, seventy seven miles; from Falmouth to Plymouth, by the south line, sixty eight miles, and allow half an hour for crossing the Hamoaze, which will be equal to the time to travelling twelve miles. It will be found that the central line will allow of a free intercourse between Plymouth and Cornwall in as short a period of time as the southern would be the means of affording, and this, taking for granted that the passage across the Hamoaze would never be liable to impediment; but, when we take into the account the delays that must arise continually in the crossing of that passage, on one day that the central line will be the more safe, more certain, and, at all times, an expeditious a mode of communication between Plymouth and Cornwall. So much for this part of the subject.

The inhabitants of Cornwall, who are the parties most deeply interested in the question, have determined upon applying to Parliament for a central line of rail; and they have so decided, because it will be a shorter line, a less expensive line to make, and, consequently, a less expensive line to travel over. Even the great Mr. Bond—who, by-the-by, is neither a surveyor, engineer, nor mechanic—now admits that he was at one period favourable to a central line—but with certain reservations for the purpose of creeping out of it. He states that the line then proposed was intended to be a track for trade from Exeter to Okehampton, to Lydford, through Launceston, &c., westward, with a line from Lydford, through Tavistock, to Plymouth; that these distinct branches of traffic were calculated upon—first, between Plymouth and Exeter, by way of Tavistock—second, between Plymouth and Launceston—third, between Launceston and Exeter; that the two first have been cut off by the adoption of the south line through Devon, and by the determination to connect Tavistock with Plymouth. Of the third branch, the traffic from Cornwall to Exeter, which was estimated highly, it also goes, the Bristol and Exeter having determined to go to Parliament for a branch to that place. Now, this is begging the question almost entirely; so, with the exception of the South Devon line, all the other destructive arrows are yet imaginary ones, and are brought forward for the mere purpose of trying to defend a bad cause. Mr. Bond ought to know, that the South Devon line will not take off the whole of the traffic from the central line to Devon Exeter and Plymouth, through Tavistock. If he be so convinced with the bearing on his proposition to be, he dares to argue that the central line, through the western part of Devon, will pass through a thirty mile and a populous part of the county, a communication with which will be opened to Plymouth by means of the central line, which will afford the same advantages to both Plymouth and Devonport, they being largely supplied with coals, corn, provisions, &c., from that district. He knows that the South Devon line can never interfere with the traffic, nor can the inhabitants of that district ever be benefitted by travelling to and from Plymouth by the South Devon line.

With respect to the one of the traffic between Plymouth and Cornwall by the adoption of the central line, have does he make that out? That traffic was to be maintained by the central line which he advocated; why he has not? Because it is determined to join Tavistock to Plymouth!! If the communications with the country that he made between Launceston and Tavistock, are we to be told that the inhabitants of Plymouth will not pass over that route way to Cornwall? Are the inhabitants of Plymouth, Devonport, and the neighbourhood, such dolts as to refuse to open a communication between those towns and the northern parts of Devon and Cornwall, merely because they may wish to support the South Devon line between Exeter and Plymouth? It appears to me, that Mr. Bond has taken too much for granted in the view he has chosen to express, and because he has adopted such a view, he appears to think that every other party must do the same. But, again, in reference to the traffic between Plymouth and Cornwall being lost. The central line, advocated by Mr. Bond, was intended to communicate with Plymouth by a branch from Lydford. The communication with the central line at present proposed, is by a branch from Launceston, both intended to pass through Tavistock. Lydford is in Devon, about seven or eight miles from Launceston. Would it be an advantage to the inhabitants of Plymouth to have to make a circuitous route to Launceston instead of a direct one? I confess that this appears to me to be a very strange and unaccountable reason why the traffic between Plymouth and Cornwall should be lost to the central line; but how would that traffic be kept up—would it be by means of the common roads and conveyances at present in use? Mr. Bond can hardly be ignorant of the false position in which he has placed himself; but having digressed from my original intention, I must leave him to fight his own battles.

The great bulk of the inhabitants of the county are to be found at and to the west of Truro, and as both of the lines are intended to meet at Truro, it will be from that point we have to start. Now, the road to Exeter by the south line through Plymouth, will be twenty miles longer than the central line, independently of the time lost in crossing the Hamoaze. The amount of travelling between Cornwall and Plymouth, compared with that between Cornwall and the other parts of the kingdom, is inconsiderable in the extreme, and even admitting that the journey to Plymouth by the south line could be performed in less time than by the central line, it is a question fairly and strongly urged by the inhabitants—why should we be compelled to travel by way of Plymouth, on our route to London, or the north of England, the distance to Exeter only being twenty miles longer, and a considerable time being lost in crossing the Hamoaze? But when we look at the question in all its bearings, as to its utility to the county at large, then it must be asked, will a south line afford the general accommodation required by the county? upon which there can be but one opinion. If the south line to Plymouth be adopted, it will be thoroughly useless to the inhabitants of the northern parts of the county, as they would save both time and expense in travelling by coach to Exeter; but a central line will accommodate all parties. The south line will pass from Truro, near to St. Austell, Lostwithiel, and Liskeard, on to Torpoint, through a most difficult part of the country. A central line will not deprive those towns of the advantages of railway travelling; it will pass within eight miles of St. Austell, and a less distance from Lostwithiel, whilst it will not be more than twelve miles distant from Liskeard—so that to the inhabitants of those places it will afford a shorter route to Exeter by many miles, and will even carry them to Plymouth in as short a period of time, taking the delay and casualties in crossing the Hamoaze into account; whilst to Bodmin, Wadebridge, Padstow, Launceston, Stratton, Callington, &c., it will afford that accommodation which a south line can never afford. The question, then, is, shall the line be so laid down as to afford the greatest amount and most extensive accommodation to the county at large?—or shall it be carried along the south coast for the accommodation of the few—a very few indeed?

Public meetings, you admit, have been held; but you attach a motive to them which is not true. They have not been for the purpose of endeavouring to win over the parties in connexion with the other line, although they would have been happy to have all parties united in an object of so much importance to the county; but those meetings have been held for the purpose of ascertaining the feelings of those who are most interested in the measure; and few questions have ever been brought before the county in which so much unanimity has prevailed, as in this instance, in favour of a central line. Not only is it the best line for the county of Cornwall, but it will furnish the inhabitants of the north-west part of Devon with a means of communication with other parts of the kingdom which they are desirous of possessing, and will greatly benefit Exeter by bringing a greater extent of traffic to that city. The southern line would be nothing more than an appendage to the tail of the Great Western line, and would be made dependant upon the will and caprice of the parties who have the management of that company. It would, in fact, be nothing more than a branch from Cornwall to Plymouth, to meet a line possessing a monopoly, and to pass on which the passengers must pay just what might be demanded. Expresses are are often sent from Falmouth to London, and as the object is at all times the saving of time, the route to Plymouth being the longest would mar the object; besides which, a command of trains above Plymouth would be dependant upon the feeling of the Exeter and Plymouth Railway Company, who would not be very anxious to facilitate the communications between Falmouth and London, the two ports being rivals to each other in the endeavour to get the packet station; at all events, I would ask, would it be wise in the Cornish people to place themselves at the mercy of the authorities at Plymouth? The central line would go at once to Exeter, independently of any interference from any other party. It would there meet the two rival lines, the Great Western and the South Western from London, and by taking the latter would reach London by a route which will be thirty miles shorter from Exeter than that by the Great Western line; so that a person travelling from Falmouth to London by the central line to Exeter, and thence forward by the South Western line, would save fifty miles in the distance, besides the delay in crossing the Hamoaze. Is this of no importance to the traveller? Then why introduce railways at all?

It is much to be regretted that there should be such an opposition to the central line, which is so universally supported in Cornwall. I have before observed, that the travelling between Cornwall and Plymouth is too a trifle when compared with what takes place between Cornwall and the more distant parts of the kingdom. In proof of this, I would merely advert to the fact, that there are three steam vessels running weekly between Hayle and Bristol, principally for the conveyance of passengers, at which latter place they meet with the Great Western Railway to London, or the Gloucester Railway to the north of England. The passage is generally an unpleasant one, from the disturbed state of the sea, and occupies twice as long a period as the journey direct to London by the central railway would require. Can anything be said more decidedly in favour of the south line than this is in favour of the central line? Some of the provisional committee of the south line have already withdrawn from it, under a conviction of the superiority of the central line, and others would much wish that the central line should be carried into effect. It is, therefore, a matter for serious regret that any opposition to it should continue, as it can only lead to an unnecessary large expenditure of money, by bringing both lines before a committee in Parliament, besides carrying a party spirit through the county, which may never be removed. There can be no disgrace in withdrawing from the south line, under the conviction of the other being a preferable one. They should remember the Cornish motto of "One and all."

One of Them.

*London*, Nov. 21.

FOST OFFICE LONDON DIRECTORY.—We have just had an opportunity of looking into the new volume of this most useful "annual." In speaking of last year's edition, we gave it unqualified praise, and stated our opinion, that, abounding as it did with all matters interesting, we essential, to the commercial community, the Directory could not fail finding its way into the offices of all classes of mercantile men—hence its early patronage this year, the great demand having months since exhausted the stock. In the new Directory, we find many emendations and important additions—the "Street List," for instance, having been enlarged by upwards of 4000 classified names, the list of principal towns throughout England and Wales greatly enlarged, the Postal Directory also most carefully compiled, and the accompanying map satisfying all the latest improvements from a recent survey—in fact, the entire work bears out the remark in the preface, that as London Directory, it was as complete and complete, for one before been produced. We also reading notice one other feature of the preface, as being highly honourable to the spirited proprietor—whose work, from its invaluable nature having become so generally known, would have commanded an extensive sale, though its price had been doubled—that with all the important additions, and being without a rival, the price remains unchanged.

HARRISON'S PATENT IMPROVEMENTS IN IRON MOULDING.—These improvements have reference to the formation of the moulds for cast iron pipes, pillars, and other articles of a cylindrical form. The ordinary method of forming moulds for such articles is, first, to form the core of the article, then to rise up the pattern of the article itself; having mounted it in this condition, the "thickness" is pared off, and the core removed, and the box finally closed. Now, by Harrison's method, two moulding boxes, or "moulds," are provided, which, when put together, are cylindrical, instead of square, as formerly. The latest contrivances of these boxes are attended with peculiarities, as follows, the object of which is to lay hold of the iron or wet sand which forms the mould; this material being laid on in the whole surface by hand. This operation, being performed on one half the box, a piece of board which has been cut on one edge so as to form a profile of the external part of the pipe, and of the outer length, is revolved upon an axis in such manner that the board forms a radial line to such axis, the axis or shaft on which this board or template is attached is then placed into the bearings, which are formed at each end of the moulding box, in such, therefore, be evident, that on giving motion to the axis or shaft, the edge of the board will describe a circle whose plane will be equal to the external surface of the pipe intended to be cast, and will, therefore, form a half mould of iron in the aforesaid box. This operation being carefully performed in the top and bottom parts of the box, the cores are taken to the stove and dried, after which the edges are carefully cleaned off so as to make a good joint, and the surface covered with charcoal, the mould is then ready to receive the core, and after carefully the surface covered with charcoal, the mould is then ready to receive the core, and after carefully the surface covered with charcoal, the mould is then ready to receive the core, and after carefully

**MEETINGS OF SCIENTIFIC BODIES.**
*IN THE ENSUING WEEK.*

| SOCIETY. | PLACE OF MEETING. | DAY. | HOUR. |
|---|---|---|---|
| Royal Botanical | Regent's-park | Saturday | 4 P.M. |
| Royal Geographical | 3, Waterloo-place | Monday | 8½ P.M. |
| Medical | Bolt-court, Fleet-street | Monday | 8 P.M. |
| Royal Medical and Chir. | 53, Berners-street | Tuesday | 8½ P.M. |
| Zoological | Hanover-square | Tuesday | 8½ P.M. |
| Society of Arts | Adelphi | Wednesday | 8 P.M. |
| Pharmaceutical | 17, Bloomsbury-square | Wednesday | 8 P.M. |
| Ethnological | 27, Sackville-street | Wednesday | 8 P.M. |
| Antiquaries | Somerset House | Thursday | 8 P.M. |
| R. Society of Literature | St. Martin's-place | Thursday | 4 P.M. |
| Medico-Botanical | 32, Sackville-street | Thursday | 8 P.M. |
| Botanical | 20, Bedford-st., Cov.-gdn. | Friday | 8 P.M. |
| Westminster Medical | 42, Sackville-street | Saturday | 8 P.M. |
| Mathematical | Crispin-street, Spitalfields | Saturday | 8 P.M. |
| Royal | Somerset House | Saturday | 1 P.M. |

**PUBLIC COMPANIES.**
**MEETINGS.**

TUESDAY.—Newcastle and North Shields Railway, at Twelve—Rock Life Assurance Company, at Twelve—Midland Railway, at Two.
WEDNESDAY.—London and Birmingham Railway, at Twelve—Combmartin and North Devon Mining Company, at Twelve.
THURSDAY.—Hull Railway Company, at Two.
FRIDAY.—Birmingham Canal Navigation Company, at Eleven.
SATURDAY.—Hungerford and Lambeth Suspension-bridge Company, at One.

CALLS.

Guildford Junction Railway, 5l.—Orleans, Tours, and Bordeaux Railway, 1l.

**NOTICES TO CORRESPONDENTS.**

HUNGARIAN RAILWAY.—J. S. F. and Mr. Shuttleworth reached us too late to appear this week.

STAGE ENGINES.—We have deferred the publication of our monthly report, in order to make some necessary alterations.


# THE MINING JOURNAL,
## Railway and Commercial Gazette.

LONDON, NOVEMBER 23, 1844.


Our attention has been drawn by several correspondents to "Act for the Registration, Incorporation, and Regulation of Joint Stock Companies," passed the 5th September last, inasmuch that it is hard to define what is the construction to be put upon the eighty clauses of which it is composed. That it is good in the object the promoters had in view we admit; but that it has been drawn up with a perfect ignorance of the *material* of which an Act of this nature should be composed, must be apparent to the most casual reader. For ourselves, we are free to confess, that, learned as we imagine ourselves in mining "lore," we can neither construe the meaning of its clauses, nor can we offer counsel or advice to others.

To effect the latter, we have drawn up a case for counsel. We may not have minutely entered into the several points, but think we have taken the main features; and doubt not but that we shall be in a position on an early day to reply to our correspondents in a more perfect and legal form than could be expected from any Editorial remarks. We cannot, however, despite legal opinion, allow the subject thus to pass by, and, although we purpose with our next or following Number giving an abstract of the Act, with our comments on the several clauses, backed by counsel's opinion, yet we feel that to allow a week to go over and not to advert to one or two of the principal clauses which more especially pertain to mining, would be a neglect of duty—one which we readily impose on ourselves, and which our readers have a right to expect we will perform.

One of our correspondents asks, "Who was the concoctor of this Act of Parliament?"—"Who (says he) were the parties consulted?" We can only in reply say, that, associated as we are with mine adventurers, collieries, quarries, railways, *cum multis aliis*—speculations where capital is embarked—never were we consulted; nor, amongst our numerous connexion, have we ever heard that an opinion had been asked. Thus, then, it would appear, that the Act has been smuggled through the House; and no doubt those who took the most active part will secure to themselves the largest pay. The principle we advocate is that of putting down the scrip system and jobbing, and so far the Government have our hearty concurrence; but we apprehend the curtain has yet to be drawn—while the projected law will be found, not only to be inactive, but inoperative.

One clause is sufficient for our purpose on the present occasion, and we take the 63d, whereby it is "Provided always, and be it enacted, that nothing in this Act contained, shall extend, or be construed to extend, to any partnership formed for the working of mines, minerals, and quarries, of what nature soever, on the principle commonly called on the cost book principle." Now, we would like to ask the framers of this Act whether they really understand the nature or the object of the Act, but more especially whether they understand, or have the slightest apprehension of, what is the "cost book principle?" We believe not. However, assuming that the concoctors were in a state of blissful ignorance of what they were about, let us for a moment say one word on this shortest (and one eightieth part as uncommonly obscure) clauses of the Act before us. In the first place, it is said that nothing "shall extend, or be construed to extend, to any partnership formed for the working of mines, minerals, and quarries, of what nature soever." Let us ask what does this really mean?—does it apply to companies or partnerships already formed, or to such as may be formed? This is an important question, and will, without explanation, afford pretty subject for special pleading. The Act says—"*formed* for the working of mines, &c.," but it says not whether such has reference to companies or partnerships which may already have been formed, or such as may be formed hereafterward; and this appears to us to be one of those omissions or commissions which render the Act inoperative.

For ourselves, we read the Act thus—that "any partnership formed for the working of mines, minerals, and quarries, of what nature soever, on the principle commonly called the cost book principle," may be constituted henceforth without coming under the operation of the Act—while we admit it is hard to determine what is the cost book principle, and whether it does or apply equally to Carmarthenshire, Wicklow, Derbyshire, and any other county, as well as Cornwall, where such principle is more generally known, but which particular district is not distinguished or noticed in the Act, and thus renders the clause universal in its application.

If, then, we are right in our position, any company can be formed despite the Act, so that it be termed or carried on on the "cost book system," while much must depend on the construction of the words of the clause, whether embracing the prospective, as well as the past. If the case be as we have construed the clause, then the Act becomes inoperative, as regards all mining operations, as well as quarries—while it behoves shareholders in the several adventures to determine what is the "cost book principle." We perfectly understand it, as affects our Cornish mines, but it remains to be seen how far such is understood to apply to other operations, although the absence of any reference to locality would leave us to suppose that the Act is intended to be universal.

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It was our intent this week to have entered at length on Accidents in Mines and Collieries, and have presented to our readers at one view the fearful catalogue which has from time to time appeared in our columns, but again are we precluded from carrying out our wishes to the full extent. The letters of Mr. MATHIAS, the Secretary of the South Shields Committee, addressed to Sir ROBERT PEEL, with other communications, render it impracticable to devote the space required to so important a subject—while we may, in the mean while, refer to the additional evidence rendered through our columns of the necessity which exists for legislative measures.

With the object of enabling our practical readers the means of judging of the nature of the underground workings at the Haswell Colliery, we have given a diagram, which we believe to be correct, and, with the letter of a correspondent, who acts on the "defensive," will place the subject fairly before the public. Under such circumstances, we have only to direct attention to the several letters and our six months report, to 30th June, reserving the sad account for the close of the year.

It is with satisfaction that we can, on authority, state, Government is taking the necessary measures, and that, immediately on the assembling of Parliament, a bill will be brought in. Let all interested watch it—Government has heretofore been too slothful, let us take care that those who seek office are not too wakeful. For ourselves, the collier and the colliery proprietor may rest assured we are not asleep.

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### COLLEGE OF CHEMISTRY.

We have had our attention drawn to the contemplated establishment of a College of Chemistry, for promoting the science and its application to agriculture, the arts, manufactures, and medicine, the provisional committee consisting of a number of noblemen and gentlemen of the first standing in society, and who have ever put themselves forward in the cause of science, among whom will be found the Dukes of Wellington and Sutherland, Marquis of Lansdowne, Earls Essex, Dalhousie, Clarendon, Ducie, Radnor, and Fitzwilliam, Lords Monteagle and Portman, those distinguished geologists Buckland, De la Beche, and Murchison, and many others. The object is to establish a school of chemistry, where analysis and research are taught practically and systematically, and where the education of the scientific chemist may be completed at a moderate expense; and, while the council acknowledge the laudable endeavours which have been made to extend a knowledge of the elementary principles of chemistry over the community by mechanics' institutes, and popular lectures, they observe that the student who may wish to adopt chemistry as a profession finds here no means of so doing, except by private tuition, or by resorting to some practical school on the continent; the expense in either case, and in the latter the obligation to learn the language, deter those of small pecuniary resources from availing themselves of these aids, and thus many most promising students are compelled to abandon it, and seek some other profession. A careful and minute investigation into the establishment and working of the continental schools, especially that of Giessen, has demonstrated that in this country a practical school of chemistry cannot exist self-supported—viz., dependent upon the fees paid by the students, but that funds must be obtained from some extrinsic source; the council, therefore, confidently appeal to the public for subscriptions and donations, considering that such an institution will be a great national benefit, and trust the Government will eventually afford their assistance. That there is not only ample field for the establishment of such an institution, but that it would ultimately become of first-rate importance, the facts detailed in the prospectus, as to the present means of instruction to those who are anxious to devote their time and talents to this fascinating science, fully convince, and donors and subscribers will find that they have not only promoted a public good, but with the legitimate expectation of an immediate and adequate return for their investment.

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### NEW MACHINE FOR THE DESCENT OF MINERS.

REPORT OF M. GONOT TO THE MINISTER OF PUBLIC WORKS OF BELGIUM.

Having been assisted by M. Warocqué, one of the chief proprietors and a director of the collieries of Mariemont and L'Olive, at Morlanwelz, to examine a machine of his invention for the descent of miners, I went accordingly last week to Mariemont, and now have the honour to lay before you the result of my visit. The model of the invention of M. Warocqué, which has been constructed by him on a small scale at his establishment, and which he intends shortly to execute on a much larger scale, has an excellent object in view—that of relieving the miners from two great inconveniences—viz., the chance of accidents, and excess of labour. It is based on the same principle as those constructions of a similar kind which are said to exist in Germany—that is to say, on the alternate up and down motion of two vertical rods, to which are attached at certain distances platforms, on which the miners successively come to rest; but, beyond this, the method of M. Warocqué presents to us a complete system, the success of which can hardly be doubtful, and of which I shall now give you an idea by a succinct description. Let two continuous rods, of wood or iron, be established at one metre, or better at 1 metre 50 cents., from each other, and from the top to the bottom of a vertical shaft. Each of the rods must be furnished every six metres in distance with a platform or landing of wrought-iron or planking, which will occupy one half of the section of the shaft comprised between the two rods, and which, except in the diameter of the shaft, must be furnished with a rail round it to prevent the falling off of the workmen. The shaft will be provided also from the top to the bottom with a vertical ladder, of which the miners can avail themselves in case of the apparatus not performing. In this manner, and the landings being opposite each other in the same level, if we give an ascending motion of three metres to one of the rods, and a descending movement of three metres to the other, it is easy to conceive that the superior or upper landing of the first rod will be found six metres above the superior landing of the second, and that the inferior landing of this will be found at six metres under the inferior landing of the first, all the other landings being at the same level; if, now, a workman should place himself on the highest of the landings at the surface, and another workman on the lowest landing at the bottom of the mine, the former may, when the two rods shall be brought to their first position, will have descended three metres, and will be able to take also, by means of a grasp placed [illegible] high above each landing, the corresponding landing of the second rod—whilst the second workman, on the contrary, will have ascended three metres, and will be able to take the corresponding landing of the first rod, and so afterwards, at every oscillation of the two rods; thus in ten minutes, for instance, the two workmen, without running any risk, and without any further trouble than that of changing the landing at every three metres, will have arrived, the one from the surface to the bottom of a shaft of 300 metres, the other from the bottom of the same shaft to the surface. By this arrangement, it is clear that nothing but the depth of the shaft could limit the number of miners who could ascend and descend one after another, as these men would form, by their own weight on the two rods, a mutual equilibrium. The means by which M. Warocqué gives this up and down movement to the rods is, indeed, very ingenious; it consists of a bent cast iron tube, whose two vertical branches, on each of which moves a full driving piston with a wooden or leather box, are placed vertically above the rods; from stirrups fasten the rods to the plunging pistons, one of which receives the motion of a steam engine of direct traction. The piston of this machine is like the rods and the two plunging cylinders, three metres in extent. The water which fills the tube transmits the vertical movement of one plunging cylinder to the other, but in an inverse sense—that is to say, whilst one of the cylinders ascends the other descends, and vice versa. I thought it would be agreeable to you to know, in the manner I have described them, the principal arrangements of an apparatus, which, if only executed on a large scale, will assuredly have the most happy results, as well for the safety of the workmen, as for the economy which it will effect in the working of mines. However, I must here have the honour of mentioning that M. Warocqué is not the first who, in the province of Hainault, knew how to profit by the up and down motion of a vertical rod for introducing workmen into the mines, and bringing them up again. In January of the present year, M. Lambert, conductor of the mines, when engaged in the first district of Mons, has applied with complete success, with some modifications, the process used in Germany, at the shafts of pumps of the collieries of St. Croix, Sainte Claire, at Dour. For this purpose he has adapted to the principal rod of the pumps, and at equal distances in its course, a series of iron steps or pattens, and vertical groups of from fifty to sixty centimetres in length, so that the workmen might easily seize them, notwithstanding their difference in stature, by placing their feet upon the platforms. Then they descend or they ascend by 2 metres 50 cents. at each oscillation of the rod, by placing themselves to let it re-ascend or to descend, to a succession of vertical steps firmly attached to the sides of the shaft, and the length of the rod from the surface down to the bottom of the mine.—*Translated from the Moniteur Industriel.*

**ORIGINAL CORRESPONDENCE.**

### ACCIDENTS IN MINES—SAFETY LAMPS.

SIR,—In your Journal of the 9th instant, I read a letter, signed James Cadman, refuting the propriety of Mr. Bagnall's suggestion, which appeared in a former Number, respecting the issue of an improved safety lamp being conducive to the greater safety of the miner of the northern collieries—also, stating that a better mode of ventilation was, in his opinion, more to be desired. This I beg leave to grant, as I feel confident such a treasure could not be objectionable to any one engaged in mining operations—at the same time, I must observe, that, so far as I can judge, an improved safety lamp, contrary to Mr. Cadman's opinion, must be a treasure of the highest value, and extremely conducive to the greater safety of the miner. With all the improvements derived from science in the ventilation of mines, the lamp is still the pitman's only protector, and until that day shall arrive when the ventilation of coal mines will be so perfected as to dispense with its use, then may improvements be dispensed with—but *not* till then. A wish is expressed by Mr. Cadman, that if some intelligent person would furnish Mr. Bagnall and others with a sketch of the workings of the pit in which the late melancholy accident occurred, these persons would thereby be enabled to form an opinion as to the safety of that pit, and whether its present mode of ventilation is that best adapted to the state of science, and the local circumstances to be estimated by every intelligent engineer. Now, I cannot but think that there is an overweening presumption in this remark, tending to show that some pet of Mr. Cadman's can, by a slight inspection of the plan, overthrow the mass of authorities that have already given judgment on the cause of the late very distressing accident. Does Mr. Cadman know the character and eminence of the individuals who have already pronounced an opinion on this question? Can he be foolish enough to suppose that any one, from a sketch such as he speaks of, will be enabled to give the public something that will invalidate the strong testimony already so clearly and so ably given? If he do so, I beg leave respectfully to furnish him with materials upon which he, "Bagnall, and others," may try their hands.

I would first premise the evidence of some persons who have been deemed competent to form an opinion on this question. First, Mr. Edward Boyd, connected as viewer with fifteen collieries. In his evidence, he stated that Haswell Colliery was the best ventilated colliery he knew, except one, which he thought was equal to it, and that at Haswell nothing had been left undone which, in his opinion, could have been done to prevent the accident. Second, Mr. Nicholas Wood, viewer of many collieries—a gentleman of long experience, eminent for his genius, and high practical talents. This gentleman's evidence gives a most vivid sketch of the workings and air courses at Haswell Colliery, and most unequivocally confirms the testimony of the former witness. Third, Mr. George Hunter, extensively engaged in the profession, of high standing, and long experience, establishes, in terms equally strong, his impression as to the care, expense, and intelligence, everywhere observable in the ventilation of Haswell Colliery. Lastly, Mr. Samuel Stutchbury, deputed by the Government to inspect and report upon this colliery, declared that he was astonished at the expense and labour that had been bestowed for the purpose of ventilating the mine—that in his opinion nothing had been spared, nothing left undone, for the effecting a due and sufficient ventilation. This last gentleman was accompanied by Prof. Faraday, Mr. Lyell, and several other gentlemen eminent for their scientific attainments, and a complete knowledge of the latest improvements suggested or adopted in the working of mines. In contrast with such authorities, what is Mr. Bagnall, or who are the "others" whose opinion is of such consequence, that we must suspend our judgment till favoured with their decision? It must be no man disguised "in buckram," no pet of a coterie, no village philosopher, whose judgment when presented to the public will outweigh the evidence here adduced. But, as before mentioned, in order that Mr. Cadman, Mr. Bagnall, and "others," may have an opportunity of displaying their powers, and trying their sufficiency upon the world, I shall here, as above stated, present them with a plain sketch of the air courses, as given in the evidence of Mr. Forster, and depicted in the plan of Haswell Colliery. It is thence to be gathered that the air is carried through the different avenues, or openings of the mine, in the following channels:—The Engine Pit and Little Pit workings form the colliery, and are both ventilated by one downcast and one upcast shaft, forty yards asunder. The downcast shaft is twelve feet in diameter, and the upcast nine and a half feet in diameter. At the bottom of the downcast shaft the air is divided into two columns—the Little Pit workings receiving 37,730 cubic feet per minute, the Engine Pit 35,000—making the total quantity descending the shaft 72,730 cubic feet per minute. The column which supplies the Little Pit proceeds along the main rolley way about 600 yards, at which point it is divided. One-third, or about 9000 cubic feet, of the above quantity, is here taken for the purpose of ventilating the north western districts of the mine. The remaining three-fourths of the column, about 29,000 cubic feet, proceed forward to what is called the Meadows Way end, at which point it is again divided. One-third, or about 9000 cubic feet, is taken to ventilate the Meadows workings, in which workings the miner is supplied with the safety lamp. With such precautions, I cannot entertain a doubt that a column of atmospheric air, in the condition in which it must here be found, would be amply sufficient to ventilate a district of much greater extent. This current is next impelled through what is called the goaf, which is the part where the whole of the coal has been taken away, and the ceiling thereby let down. If in any part of a pit gas is generated, this is usually reckoned by judges the suspicious quarter; yet, long after passing this place, and at the last general return, where all the impurities should be accumulated and condensed, Mr. Nicholas Wood stated that upon examination he could not detect its presence. From the Meadows Way end proceed 19,000 cubic feet of air to what is called the High Brockly Whins flat, at which point there are two divisions, one to the left, and the other to the right, for the purpose of ventilating the pillar working. Following the main current there, proceed about 12,000 cubic feet, which, after a progress of about 100 yards, is equally divided betwixt the workings of the right and left-hand sides. The sketch at this point indicates eight boards, or openings, on the left hand side, four yards wide, and about twenty yards apart, striking off at right angles to the main headway. Along the headway proceed 6000 cubic feet of air per minute, which column ventilates these boards, or openings. That the whole of this column is considerately not directed through these boards must be obvious for the following reasons:—*First*, in the most complete ventilation elsewhere, one third is reckoned superfluous; and, next, if driven through these openings, the miner, from its chilling effects, would be rendered incapable of performing his work. Here is exhibited an abundant surplus, confirming the statement of Mr. Hunter, that "Haswell pit has a greater quantity of air passing through it than any other colliery he had ever seen." In describing the one side of the main current, we have described the other and opposite one, and collecting now in what is called the principal return drifts or openings, these currents united now away to the before mentioned upcast shaft, at the bottom of which two extensive furnaces, by their heating and rarefying effects, produce, as stated, the great and uniform velocity of eight miles an hour.

Hoping, Sir, that in a subject necessarily dry to the public taste, we have been as little tedious as possible, we would respectfully solicit the attention of Mr. Cadman, Mr. Bagnall, and the "others"—"good men and true," no doubt—to the problem, started and self-imposed, contained in the above paragraphs. If, from the description here given them, they shall be enabled to devise such measures as shall for ever prevent the recurrence of such another dreadful catastrophe, then, "above all Greek, above all Roman fame," be the names of Cadman, Bagnall, and "others," eternally recorded; let the Davy lamps be converted into mementoes, the praises that have been awarded Davy, Faraday, and the rest of that ignoble herd, be more properly directed *in Fuman* to the greater names of Cadman, Bagnall, and the "others." Should, however, this "consummation so devoutly to be wished" not be attained, but should it, upon the most careful and dispassionate inquiry, be found that the utmost the skill, humanity, and a lavish expenditure, can accomplish, has already been attempted, then be the praises diverted from pseudo philanthropists, conceited Charlatans, and all that herd, those who batten upon misrepresentations, self-interested wretches, breathing their poison to the full as noxious as the fatal hydrogen into the ears of the unlettered and unsuspecting victims—let, I say, the praises be directed to those who, having already taken every precaution, are still benevolently intent that the surviving sufferers by the late explosion have wherewithal to nourish, comfort, and keep them warm, in this their hour of adversity.

Nov. 21. A PITMAN, &c.

[Some remarks will be found in another column. The benevolence, comfort, and warmth, to the surviving sufferers, is highly creditable—but this is not sufficient. "A Pitman" is "[illegible] [illegible] [illegible] which the [illegible] of the working [illegible] [illegible] [illegible] as [illegible] of [illegible], while the [illegible], although [illegible] upon by one evidently knowing his ground, is [illegible] with a flippancy (if we may use the expression) which we regret to observe.]

### REGISTRATION OF JOINT-STOCK COMPANIES.

SIR,—Since the publication of my letter, in last week's *Mining Journal*, I have perused more than one analysis of the Joint-Stock Companies' Act; but, with all deference to the learned essayists, I would plainly say, that there is a defect in their dissertations—for they all fail in indicating intelligibly to the public the true nature and extent of the *exceptions* to the Act, so rigidly recited in the second section. The mind of the legislature is, I think, simply as follows:—All joint-stock companies are now, to be placed under peculiar, and even penal, regulation, but companies for executing certain specified public works are to be exempted when they are incorporated by means of a special Act for each company. Until an association of persons for "executing any bridge, road, canal, *railway*," &c., is recognised by Parliamentary sanction, it is not, in fact, a bridge, road, canal, or railway company, but a joint-stock company in what may be termed a transition state, and as soon as the Royal Assent is obtained, the newly established *railway company* is to be governed by the provisions of their own Act, *not* by the Joint-Stock Companies' Act, unless by virtue of some provision introduced into the railway company's Act. There is so much legal mystification in the present day, that it is very difficult to arrive at the common sense construction of statutes. THOS. MULOCK.

P.S.—In my last letter, line 13, the section of the Act referred to should be the 2d, and not 23d.

### NEW REGISTRATION ACT—MINING COMPANIES.

SIR,—In the Act passed during the last session to enforce the registration, incorporation, and regulation of joint-stock companies, I find that by clause 63 all mining companies conducted upon the "cost book" principle are exempt from the operations of the Act. Now, what is meant by the Legislature by the cost book principle is not set forth in the Act, and I take leave to suggest to you, that although it may be generally understood, there are a great number of your readers who have not correct information on the subject, and that you could not, at this juncture, render them a greater service than by defining the true intent and meaning of the term. If it would not be taking up too much of your space and time, you, perhaps, would be so obliging as to furnish to your readers a form of the books of a mine worked on that principle, with the usual heads, and filled up with nominal amounts; also to inform your readers whether mining companies established, or that may be established, with fixed amounts of capital, divided into 1000, 5000, or 10,000 shares, may be worked upon the cost book system, and thereby excluded from the operation of the Act.—*City, Nov.* 20. ENQUIRER.

[We had already directed our attention to the subject antecedent to the receipt of the letter of our correspondent, and hope next week to give the opinion of counsel on a case we have prepared, having reference to the several clauses in the Act. As regards the particular point on which an "Enquirer" asks for information, he will find it noticed in another column.]

### NEW PLAN FOR THE VENTILATION OF MINES.

SIR,—Enclosed I beg to hand you a copy of my letter on the ventilation of coal mines, by the application of the fan blast, as published in the *Newcastle Advertiser*, and which I should feel obliged by your insertion in the *Mining Journal*, together with the accompanying additional remarks:

"The late melancholy accident at Haswell Colliery proves that the present system of working mines is behind the spirit of the times; it might have answered well enough some fifty years ago, but now that the northern coal trade has swollen to such dimensions, and mines are worked and explored to such extent underneath, it behoves every one who understands any thing of the matter, or who thinks he can suggest improvement, to speak out. In this spirit I submit the following mode of ventilation to your readers:—A powerful fan blast, driven by a steam-engine of 50-horse power, one set of fans, 4 ft. 6 inch. diameter, eleven inches broad matting, 990 revolutions per minute, will produce 57,600 cubic feet of fresh air per minute; the above engine will be capable of driving ten fans, producing 576,000 feet of air. Now, the quantity of air descending the shaft of Haswell pit, according to newspaper reports of an inspection by N. Wood, Esq., was 74,228, being less than one-seventh of the quantity which could be forced down under my plan, which would drive out completely and dislodge all noxious gases. The fan blast could be erected convenient to the shaft, and proper air courses and pipes attached from thence down the shaft; they might then be carried underneath the bottom, even the most intricate, working on the principle of gas or water pipes, with large taps. It is needless to add, that, with such quantities of air playing on the men during work, an explosion would be next to impossible; but if, from some unknown cause, a trifling explosion should take place, the workmen that were unhurt might escape in safety, as the blowing down of the stoppings would not, in this instance, impede the progress of the air in its ventilating process, which would effectually clear away the after-damp."

The benefits which would result to the working miner from the adoption of the above plan would be chiefly three, viz.:—1. As great a security of human life as that enjoyed by any other workmen engaged in dangerous and laborious occupations. 2. The enjoyment of that (to the working man) greatest blessing—a sufficiency of light in which to work, the danger of explosion being removed—he being no longer, as at present, compelled to work in the almost obscure light of a Davy lamp, which only makes darkness more visible. 3d. A sufficient supply of fresh air, to inflate the lungs of the miner, from which he would derive the oxygen of life, instead of breathing noxious gases that war with elements of flesh and blood, and sweltering in perspiration and coal dust, as at present.

I hope and trust that my plan may get a fair trial—it is not Utopian—it is the result of a lengthened experience; and I would deem it a great blessing to humanity, if I should live to see it accomplished. Some objections have already been taken against it; this, as a matter of course, was to be expected; but, in order to silence cavil, I may state, that I purpose making such improvements and additions in the fan blast, and also in the dimensions of my air courses, as, I trust, will effect the purpose I have in view, and carry air for ten miles underneath, as well as for as many yards. Should any of your correspondents require further information on the subject, I shall be happy to afford it according to my ability.

*Hudson street, North Shields, Nov.* 14. WM. DOWNS.

### MR. SAMUDA—"SPIGGOT AND FOSSET JOINTS," &c.

SIR,—The melancholy accident, which deprived the world in a moment of so many able engineers and engine-men, and the recent awful steam-boat explosion in the United States, furnish additional proofs that the necessary precautions for the safety of human life during the application of the tremendous power of steam are, to a considerable extent, still disregarded. From the reported evidence on the inquest as to the catastrophe on the Thames, it appears that the bursting of the "spiggot and fosset joint," which is used to allow of the alternate contraction and expansion of the iron without fracture, and for the effect which would otherwise be produced by the motion of the vessel, in relation to the piston and the steam pipe, was the cause of the calamity. It seems that the joint is somewhat like that of a common street gas pipe, and packed in a somewhat similar manner. It is not impossible that the steam valve might have been gagged by galvanism or electricity in addition to its pressure weight, and the attraction of cohesion in a deep collar ground steam-tight; and it is evident that the (consequent additional) pressure of the pent up steam forced out the joint, the elastic power acting on the ends or returns of the pipe, and thus bursting the joint itself. If the "spiggot and fosset" be the best, I would propose that it should be guarded by an outer case or jointed pipe, so as to allow sufficient space for expansion and contraction, or that some substitute be adopted.

As to American explosions, on a small scale, they are every day affairs, but the last reported "goes ahead" in point of destruction of life. It seems that parts of the boilers which were found in the bodies of men were burnt very thin, and that the usual inspection had not been attended to. Why should not hydraulic pressure be applied as a test to the boilers of steamers, after they have been used, occasionally, as well as before actual steam trial? The phenomena of explosion is a subject which has not yet received the attention which it merits, considering the awful consequences involved. The ordinary "safety" or rather destruction valve is evidently not a sufficient security. A cone [illegible], as I suggested some time since—that is to say, a valve resting on a tapered edge of a pipe projecting from the boiler, or resting like the cover (my cattle tin) of a common earthenware [illegible] on it, with side guides, would, perhaps, be an improvement, the circular plate weights, with a hole in their centres, being placed as desired on a vertical rod fixed in the centre of the valve, instead of the sliding lever weight now used. ALFRED T. J. MARTIN.

*Penzance, Nov.* 24.

### "SHORT" IRON.

SIR,—Repudiating all intention of entering into the comparative merits of Scotch and English iron, or hot and cold-blast, I would merely venture to record my firm and decided opinion, that, in particular cases—as in the instance at Oldham—cast-iron should not be trusted. It is always crystalline in its texture, and, therefore, more or less brittle, according to the circumstances under which it is prepared, in reference to the character of the ore, the flux, ratio of cooling, and admixture of extraneous matters. A specimen of native iron, somewhere in my possession, is fibrous in structure. In the case of axles, and the like, rods or plates of iron should be twisted together, and united by welding. It is in this way, I am informed, that the famous "Damascus blades" are made, and that their vast superiority is not merely connected with the individual character of the *wootz*—though that, too, may contribute something to their value. Many specimens of fine Swedish steel, I conceive, may vie with ordinary Indian *wootz*. I believe, too, that the pliancy and other properties of the Spanish "toledo" are also assignable to the mode of working the steel, and twisting the plates or rods together. The sword presented by Mr. Sowerby to the Emperor Alexander, and manufactured from the meteoric iron of Siberia, was, if I recollect aright, very flexible and elastic, arising, no doubt, from the fibrous structure of the material. I merely wish to recommend the old adage—"A threefold cord is not quickly broken"—to the case of working in iron. The cohesive strength of the individual film may be feeble, but the aggregate of numbers, twisted together, as in the rope, may defy a powerful shock.—*Nov.* 20. J. MURRAY.

### SULPHURETTED HYDROGEN.

SIR,—I have already mentioned the facts stated by Dr. Ryan, and recorded in the *Mining Journal*, respecting this virulent septic poison, in my *Sketch of Chemistry*. When in Paris, I remember, four persons were withdrawn from one of the public sewers of that city in a state of asphyxia—victims to this gas—two of whom were eventually recovered by the judicious administration of chlorine; and I remember, too, that the Baron Thenard, on one occasion, having introduced a greenfinch into atmospheric air, impregnated with about 1-1400th part of its volume of sulphuretted hydrogen, the bird seemingly perished, but immediately revived on being withdrawn, and its beak held over a phial containing nascent chlorine.

*Nov.* 20. J. MURRAY.

### CONSOLIDATED TREIOIL MINING COMPANY.

SIR,—I have much satisfaction in appraising the shareholders, through the medium of your columns, that a requisition highly respectably signed to the extent of more than one-third of the shares has been sent in to the directors, requesting that a meeting may be called, which, I presume, will be duly advertised. Having accomplished my object thus far, it must be left with the shareholders to act as they deem best—while they may safely reckon on my humble assistance as a shareholder. H. E.

*City, Nov.* 21.

### ENQUIRIES ON MINES AND MINING MATERIALS.

SIR,—I have often read in your Journal the opinions of geologists and mineralogists, as to what this globe of ours was, is, and will be (for my own part I am content to take it as I find it), but I do not recollect ever seeing what I now ask for—viz., where are the following metals found in the greatest abundance, and what are their general uses—copper, tin, lead, zinc, antimony, cobalt, manganese, nickel, and sulphur? I am induced to ask this favour from you, because I may rely on having simple and intelligible truths, and freed from the mystical notions of some geologists and mineralogists. I live among working miners, and know that that worthy body of men would, for the most part, be equally thankful with myself for the information. As I reside in a mineral district, I am associated with miners, and have frequent discussions on what is found in your useful paper, as to mines and mining in general, and am much benefitted thereby.

I shall also be much obliged if you will be kind enough to favour me with a few clear explanations as to where tallow, hemp, oils, and such like articles, connected with mines, come from, and how and where manufactured; also, from whence we get the timber used in our Cornish mines; also, some information as to the manufacture of steel, brass, and zinc, would be acceptable. I am sure you will cheerfully give the information I ask for, and let me assure you that it will be thankfully received, whenever you have a corner that is not pre-engaged with the learned articles of such of your correspondents who *frighten* us Cornishmen with reports of "extraordinary looking lodes, eighty feet wide, and towering crest-like to the height (in many places) of twenty fathoms," but of which monster formation (as the writer calls it) I have heard nothing further.

*Truro, Nov.* 11. A CONSTANT READER.

[In answer to our correspondent, we may observe, that copper is found in almost all parts of the world—while the supply to our home markets, and export from this country are principally confined to the ores of Cornwall, Ireland, Cuba, and Chili; tin is principally found in Cornwall and Banca in the East Indies; lead in North and South Wales, Derbyshire, Cumberland, Westmoreland, Yorkshire, and other localities in England, besides other parts of the globe. The ores of zinc are found in extensive deposits in Cornwall and the Mendip Hills, and in Silesia and other continental mining districts—sometimes much to the annoyance of miners when working for other ores; and antimony, cobalt, manganese, and nickel are found associated with other metals, under various circumstances, in all mining countries. Sulphur generally accompanies all the metals; the large sulphur lode of Wicklow, and running for several miles, is remarkable. Tallow and hemp from Russia; oil from the North and South Seas and the whole of the south of Europe, of various kinds. We should recommend our correspondent, however, to obtain an *Encyclopædia Londinensis* and a few good elementary geological works, from which he will find much satisfactory material for many a long winter's evening.]

### BENEFIT TO THE WORKING CLASSES WITHOUT EXPENSE.

SIR,—Now that "Baths and Wash-houses for the People" are drawing so much attention, it may be well to suggest that in selecting the sites of such edifices, preference should be given, whenever the opportunity is afforded, to situations immediately contiguous to works regularly employing large condensing steam-engines. Such engines throw off a large quantity of condensing water fully at blood-heat; and I would propose that the proprietors of such establishments should be requested to give this water—or much the larger portion of it which runs to waste—for the use of the public baths. Common benevolence, I should imagine, would induce them to accede in the most handsome manner, to this most reasonable request, and even to enter into an agreement to allow this water to flow to the baths for a lengthened period.

Such an arrangement being once completed, would justify the committee in laying down pipes to conduct the water to their establishment. If these pipes were well laid in some non-conducting material, such as sawdust, the water might be brought a considerable distance without much loss of heat; and the *immediate* contiguity of the steam engine, or steam-engines—for the supply might be brought from more than one—would then become an object of less moment. The saw dust I have just mentioned would require enclosing in a brick drain covered with asphalte, to protect it from moisture; or, if the pipe were supported at proper distances (insulated, I might almost term it) in such a passage, the object in view would be accomplished, provided the air were not allowed to escape, so as to create a cold current through the drain, as that element is a very bad conductor of heat.

The moderate expense of laying the pipes having been provided for, it is obvious, each of these excellent establishments for the benefit of the people, as could have these advantages, would be supplied with pure hot water, at no further expense whatever.

I think the benevolence of the waterworks companies also should be appealed to. No doubt it will; and if they cannot afford to give, I flatter myself they will furnish the element at first cost price—that is, calculating only the small charge the baths would occasion, additional to the ordinary expense of working the powerful machinery, employed in throwing forward the supply of water from their respective districts.

*Nov.* 19. [illegible]

M. Millon has discovered a new combination of sulphur, chlorine, and oxygen, the properties of which are of great importance in the theoretical transformation of mineral compounds. This new compound is obtained by pouring a few drops of chloruret of sulphur into humid chlorine. There then appear transparent crystals, which are immediately destroyed if brought into contact with water. These crystals left to themselves in well closed iron tubes are transformed in a few months into a thin liquid, which will not congeal at a temperature of 18° below zero.

### LAND DRAINAGE.

The importance to be attached to any measure which tends to the relief or assistance of the agriculturalist, is of too much moment not to call for a passing remark, when any project is brought before the public which has in view so desirable an object. Among the many projected measures, which have from time to time been brought forward, none appear to us to possess greater claims on the attention of the capitalist, the landholder, and the tenant, than the application of capital to the drainage of land, whereby the estate is not only rendered of increased value in the ratio of 20 to 30 per cent., but the increased crops derived from which may be supposed to enhance the value of the farm to the tenant at least 10s. per acre, and thus on a moderate estimate, afford him a surplus such as to be highly remunerative for the capital employed. In many cases, we are aware, that the advantages attendant on a proper system of drainage is not only duly appreciated, but is acted upon either by the landlord or tenant, or by a union of interest. The main point, which at the present moment would appear to occupy the attention of the agriculturalist, is the dressing of the land and the employment of guano or some other admixture of animal, vegetable, or chemical product, so as to increase the crops, and this deserves every encouragement; but, inasmuch that the land becomes again impoverished, after a lapse of time, a renewed application of the guano or other manure hence becomes necessary. Now with land drainage, once effectually done it is done for ever—land which before would not give a blade of grass becomes with ordinary attention to the surface operations, highly productive; and money thus invested is not daily or yearly being reduced in capital, but is daily improving the value of the property, and adds not only to the wealth of the tenant but the security of the landlord.

The difficulty which, however, presents itself in too many cases, is the capital required effectually to drain any extent of land, while, if it be only partially done, the expense is proportionately greater, and the advantages in the same ratio lessened. Again, any capital expended for this object is literally sunk, and not, as in the case of dressing ground, which gives its crops for the succeeding two or three years, is, if well done, an improvement to the property, which may be considered as extending over the term of a tolerably long lease. We find, in many instances, that the landlord is content with the rent he receives, and as he cannot increase his rent roll by improving his estates, or affording encouragement to his tenantry, too frequently leaves to his steward the management of his estate, or rather, we should say, the collection of his rents, regardless of the interests of those who hold leases, and, in many cases, perchance, at a rack rent. It is true that there are exceptions—many honourable exceptions—where the landlord considers his interests interwoven with those of his tenantry, and encouragement is afforded in many forms; but, as it appears to us, we repeat, none present themselves so tangible, so readily to be understood and appreciated, as that of affording aid by means such as present themselves by the drainage of land—thus not only assisting the farmer, and enabling him to meet the rent day as it comes round, but secures to the landlord its ready and cheerful payment, while his property becomes enhanced in value. It may be said, why should the landlord be called upon to make this outlay, more especially in cases where a beneficial lease has been granted, while the tenant in another case may, with just grounds, complain of high rents, light produce, and small returns, and however willing he might be to improve his farm, perhaps possesses not the means.

All this we can readily understand, and it is with the view of directing the attention of landlords and tenants that we are induced to take up the subject on the present occasion, having before us the prospectus of a company, which has for its object the advance of money (secured upon the estates) for promoting the drainage of land in the West of England and South Wales. The value to be attached to an association of this nature, if properly conducted, (for all hinges on that), can hardly be too highly appreciated, as affording not only security to the landlord but increased profit to the tenant, while employment is afforded to the labourer, not only in effecting the object in the first instance, but in the increased crops and the beneficial results necessarily arising out of an improved system.

From the prospectus before us, it appears that an influential body of gentlemen have associated themselves as a provisional committee, for affording to the landowners and the farming community of the West of England and South Wales the advantages to be acquired from the employment of capital to the purposes of drainage. A brief abstract of the objects of the company will best convey to our readers the main features which it presents, and, with the best wishes for its success, as being calculated to afford that assistance to the agriculturalist, of which, in too many instances, we fear, he so much stands in need, we take our leave of the subject for the present.

The object of the company appears to be that of rendering facilities in the draining of land, by effecting such object in the most economical and perfect manner, or advancing capital for such purpose—the amount so advanced being repaid by instalments, according to agreement; while, by the Act of 8th and 9th Victoria, the owners of settled estates are empowered to charge their lands with the advances so made. It is hardly necessary to observe, that in the prosecution of the object of the company labour will be afforded, which must have the beneficial effect of relieving the distress which, in too many instances, unhappily prevail in the agricultural districts, while the operations of the company cannot fail to benefit both landlord and tenant. As regards the capitalist, it must be apparent, that a company of this nature is not speculative in its character, but rather assumes one of advancing sums on mortgage, while it is to be remembered, that the sums so advanced are not applied to the discharge of incumbrances, but to the improvement of the soil, and hence increasing the value of the property in a ratio proportionate to the outlay. The improved mode recently introduced for the manufacture of tiles enables them to be rendered at one half the cost at which they have hitherto been obtained, while the capital of the company will naturally command peculiar advantages, and, while it affords aid to the landowner and tenant, cannot fail to yield a large profit to the shareholders. The capital of the company is 250,000*l*., divided into shares of 50*l*. each, on which a deposit of 2*l*. is payable on allotment.

### THE ATMOSPHERIC SYSTEM.

A report on the practicability of adopting the atmospheric system on the High Peak Railway has just appeared in a small pamphlet, by Mr. Leonard, the able engineer to the line; the report was made in conformity with the directions of the committee of management, and enters very fully and fairly into the merits and demerits of its applicability to this particular line. After noticing its peculiarities of operation as contrasted with those of other railways, and briefly but minutely describing its construction and principles, Mr. Leonard proceeds to consider the practicability of its application to the line in question, and, as an adjunct to a long single line, with a minor local traffic, he thinks it would be an experiment of doubtful success; but confined to situations where it does not require that trains should be traversing in opposite directions, and in situations where good gradients cannot be obtained, it offers advantages which are not found, or could be accomplished so well, so safely, or so economically, as by any other system at present known. After acknowledging the kind attention received on inspection of the Dalkey atmospheric line, he proceeds to inquire—first, as to the mechanical practicability; second, as to the comparative loss of power; third, as to the working expenses, wear and tear, &c.; fourth, as to the requisite permanent outlay; and lastly, as to the comparative advantages and disadvantages. With respect to the first, he found the working parts most subject to wear, by no means complicated, or made of other than the most common materials; consequently, not easily deranged, or requiring other than common workmen for their repairs. With respect to loss of power from leakage, he compares it with the friction of a rope of iron, and, from various considerations, concludes, that the loss by leakage in the one is equal to friction in the other. Coming, then, to the third inquiry, the working expenses, wear and tear, &c., on the High Peak line; they have operated [illegible], which, with [illegible], Mr. Leonard [illegible] per annum; while on the atmospheric plan, their working cost, in proportion to the Dalkey line, would not exceed [illegible] per annum, or an annual saving of one half. As to the requisite permanent outlay which would be required in changing from one system to the other, the interest of capital required would increase the annual expenditure [illegible] per annum. In comparing the advantages and disadvantages of the two systems, he does not consider that a mere mechanical line would compensate for an additional outlay of [illegible], and there are some circumstances under which [illegible] that the line in its present state would not be benefited by the application of the atmospheric plan, but admits, that if certain improvements in the railway were effected—viz., reducing the [illegible] to a moderate gradient [illegible] quarter of a mile, avoid the [illegible] incline, and [illegible] that part between [illegible] and [illegible], to cover the whole with [illegible] instead of cast-iron rails, and connect one end with the North Midland and the other with the [illegible] and Birmingham [illegible], even with the necessary addition of capital, the new system would, as a profitable speculation, place the line in a better position than in its present state it can ever attain.

## PROCEEDINGS OF PUBLIC COMPANIES.

### BRITISH IRON COMPANY.

The half-yearly meeting of this company took place on Tuesday, the 12th inst., at the offices of the company, New Broad-street, City.

J. Horsley Palmer, Esq., in the chair.

The advertisement calling the meeting, and the minutes of the last meeting, having been read,

The Chairman said, he was sorry to have to apologise for the absence of Sir George Larpent, who was out of town; he then read the following report to the meeting:—

REPORT.

The present is a half-yearly general meeting of proprietors, held in pursuance of the deed of settlement and regulations of the company.

A report of the receipts and disbursements of the company in the half year ending on the 8th July last, and the balance-sheet of that date, both signed by two of the auditors, are laid upon the table.

The balance-sheet shows the following as the state of the company's affairs at that period—viz.:

| | | |
|---|---|---|
| Debt due by the company on promissory notes | £104,815 0 0 | |
| Interest on the same | 994 12 10 | 105,810 12 10 |
| To other creditors | | 7,264 6 7 |
| Making together | | £113,075 19 5 |
| Against which were the following assets—viz.: | | |
| Cash and bills in hand | £[illegible] 2 0 | |
| Debts due to the company | [illegible] 10 6 | 13,066 1 2 |

Which deducted, leaves a balance of debt due by the company, on the 8th of July last, of £100,[illegible] 18 3

As the balance on the 31st December last, according to the report of the directors to the last meeting, was [illegible], the amount paid off in the half-year has been [illegible], besides providing for the interest upon the debt and charges, amounting to [illegible].

The balance which was due to Mr. Attwood, amounting to 150,000l., was paid off the 1st of April, out of the money received of the New British Iron Company, which had been deposited for that purpose.

The amount received on calls from the 31st December to the 8th July was [illegible], and from the 8th July to the present period [illegible]—making together [illegible], received in the present year. The amount received since the 8th July has been applied towards the further reduction of the debt, which is now reduced (after deducting assets) to about [illegible]—promissory notes, amounting to [illegible], having been paid off, besides accruing interest. The amount outstanding on notes is now only [illegible]. The directors have been enabled to reduce the rate of interest from 5 to 4 per cent. upon those renewed in May last and subsequently.

The directors have the satisfaction of informing the meeting that a considerable amount of the arrears of calls has been recovered; the amount since the date of last meeting, upon calls payable to the 8th February last inclusive, being [illegible].

As regards the remaining defaulters, the directors, in conjunction with the company, are taking the legal steps authorised by the late Act of Parliament, and several actions are in a forward state, so as to come on for trial at an early period.

The Chairman alluded to the arrears of the defaulters, respecting which he said that every exertion that was right and proper would be made by the directors to enforce those payments, which, indeed, was only their duty to the proprietors at large; and he hoped at some future time to report a considerable further progress in that respect.

Mr. Hichens wished to know the amount due by the defaulters?

The Chairman: 110,000l.

Mr. Hichens wished to know what proportion was considered good out of that amount?—The Chairman said he could hardly offer an opinion; some, no doubt, were good, others might at the proper time become a matter of compromise, but he was quite at a loss how to offer any decided opinion; he did hope they would all see their obligations, and would fulfil them, knowing that by such an act they were only doing what was just to themselves, as well as to the company.

Mr. Hichens thought the chairman might hold out some prospect; for instance, whether 20 or 30 per cent. could be obtained.—The Chairman: Arrears amounting to 24,000l. have been already recovered, as mentioned in the report, and it is not improbable that as much more will be received, as, with the 24,000l., may make 20 per cent. upon the amount which was in arrear some time ago.

A Proprietor asked what the debt was now reduced to?—Mr. Smith (the secretary): It has been reduced from upwards of 700,000l. to 110,000l.

A Proprietor asked for information respecting the actions against defaulters for calls?—Mr. Freshfield (the solicitor): There are several actions to be tried at the sittings after term.

A Proprietor wished to know what they had gained by the New Act of Parliament?—Mr. Freshfield said there was a more simple form of declaration, and in some of the forms of proof. The mode of proving all the facts was now merely by their own books.

Mr. B. Taylor stated that he had attended a former meeting, on which occasion he was one of those who had agreed to pay up, and support the directors, upon the assurance of the directors, supported by their legal advisers, that they possessed means to compel those who stood out to pay up their instalments; on this understanding he continued up to a certain period to make his payments, but since then he had found out that those who did so support the directors only got laughed at by those who stood out; they, as he understood, being now exempted by a clause in the last Act of Parliament. (Hear, hear.) He did not see any of Major Richardson's friends there, who had attended a late meeting.

Mr. Hichens: Perhaps you are sorry you have not some of them with you?

Mr. B. Taylor: I should be happy to have their money with me. (Hear.)

The Chairman said Mr. Taylor was quite in error, in supposing that there was any clause of the nature he had mentioned in the company's Act of Parliament. Perhaps he alluded to the forfeiture of the shares of Major Richardson and others upwards of a year ago, but that was done by the proprietors at large, at a general meeting.

Some conversation here took place between Mr. B. Taylor, Mr. Hichens, the Chairman, Mr. Ravenshaw, and others, as to bygone grievances, but which passed off in a good spirit.

Mr. B. Taylor wished to know why that 1000l. was paid to Mr. Shears? The hon. proprietor was then about making some sharp animadversions on this affair, when Mr. Ravenshaw observed that he thought it was unfair for the hon. proprietor to make such allusions to Mr. Shears, when he was not present to answer for himself. The money alluded to was paid under the sanction of a general meeting ten or twelve years ago. (Hear, hear.)

Mr. B. Taylor said this was the first public company he had ever anything to do with, and it would be a lesson to him for the future.—Mr. Hichens thought it would prove a cheap school to the hon. proprietor.—Mr. B. Taylor: Not a very cheap school. (Hear, hear.)

The Chairman regretted, in common with the hon. proprietor, the existence of this company, and would have been most happy could any other means have been devised to save the hon. proprietor's pocket, or those of his co-partners. He could not of himself individually, than he did, so far as his means would admit of, come forward to relieve other individuals, by taking on himself the burthen they themselves could not fulfil. (Hear, hear.) He could assure them that no concern in this world ever gave him so much anxious pain and anxiety as the affairs of this company. He was quite ignorant of the early transactions of this company, and only consented to undertake his situation at the board to supply the place of a particular friend. The hon. proprietor (Mr. B. Taylor) had alluded to the connection and meeting which appeared; he might only say, that there was only one member of the committee that did not attend. This committee did meet, and gave their report to the general body of proprietors, which was not to be passed out of sight. (Hear, hear.) He would not help alluding to one of the most important judgments that was ever given in the Court of Exchequer, which was that by Lord Lyndhurst in favour of this company—a verdict which went with common sense and common justice. After that judgment, it was well known to the proprietors, that the shares rose up to the price of 30l. per share. (Hear, hear.) From the uncertainty of the law, that case was referred to the House of Lords, which was most unfortunately reversed, and was therefore the main cause of the difficulties of this company; in addition to which they had to cope with that panic[illegible], 1836, 1838, and [illegible] most serious depression in the iron trade of the country, so completely paralysed every exertion which was made for eight [illegible] after the reversal of Lord Lyndhurst's judgment. He [illegible] to say this much on the part of himself and his colleagues, that they did everything that they thought likely to get the company over its difficulties, and had themselves made numerous sacrifices for the purpose. (Hear, hear.) He knew that the hon. proprietor did not mean to impute anything dishonourable to the directors, and was not actuated with anything like hostility towards them, but had only given way to that feeling of disappointment which was natural.

Mr. [illegible] did not mean in any way to impugn the integrity of the directors.

Mr. M'Gregor: Would it be advisable in any different position, supposing a call were made to pay off the residue in the shape of a contribution from shares we have the same powers then of enforcing our claims against other proprietors as we have at present?

The Chairman said, it would be first to be obtained what could be obtained, so as to say what would have to be made up by the other proprietors.

Mr. M'Gregor thought, that by paying the debts of others, they would have no security against them as proprietors.—Mr. Hichens said, they ought first to enforce the payment of arrears as far as possible.

A Proprietor asked, what number were exempted from the payment of calls?—The Secretary: The proprietors hold 440 shares.

A Proprietor asked, how much the call paid up to the 8th July amounted to?—The Chairman: An average. Mr. Freshfield: There is now one amounting to [illegible], and a half is now in the shape of interest. But [illegible] to get out of the interest and [illegible]?—Mr. Hichens: Would this advice be taken by the proprietors generally?—The Chairman thought there might be great objections to that at present.

The Chairman said, that as it appeared no proprietor had any further questions to ask, he should propose the adjournment of the meeting.

Mr. Hichens then moved, that the thanks of the meeting be given to the chairman, which was seconded, and passed unanimously.

The meeting then adjourned.

### BRAZILIAN COMPANY.

A general meeting of this company took place at the office, in Royal-street-buildings, City, on Friday, the 22d instant, George Hathorn, Esq., in the chair.—The Secretary read the report of the directors.

The report stated, that the operations at Cata Branca, since the last report of the directors, had been attended by the vicissitudes incidental to all mining undertakings, as was shown by the following statement of the quantity of lode stamped, the gold produced, and the average number of tons of lode to the pound of gold, from 1840 to June 30, 1844, inclusive:—

| | Tons of lode stamped. | Lbs. of gold produced. | Tons of lode to 1 lb. of gold. |
|---|---|---|---|
| 1840 | 16,220 | 874 | 18½ |
| 1841 | 21,794 | 864 | 25 |
| 1842 | 21,602 | 790 | 27¼ |
| 1843 | 21,640 | 260 | 80 |
| 1844 until the middle to June 30, | 7,200 | 134 | 51 |

The object so long in view, of extracting an increased quantity of lode, has been fully accomplished—the natural result of the application of a larger force; but the deterioration in the value of the lode since 1840 had, unfortunately, prevented a corresponding increase in the gold returns. During that year, the value having been at the rate of 18½ tons to the 1 lb. of gold, nearly the average of the two preceding years, the gold return was highly satisfactory (874 lbs.), exceeding the current expenditure of the year by about 10,000l.; and the directors entertained well grounded hopes that the patience of the shareholders was on the eve of being rewarded by the best criterion of success—the payment of dividends. The two following years a sensible decline occurred in the value of the lode, the average having been 25 tons to the 1 lb. of gold in 1841, and 27¼ tons in 1842; but this evil having been in some measure compensated by the additional quantity stamped, the result was far from discouraging. In 1843 the decline was still more serious, the average having been 80 tons to the 1 lb. of gold, and the consequent diminution in the produce has caused a very unfavourable change in the position of the company.

Captain Cotesworth was of opinion, that this decline was to be attributed to a slide, which had been found to pass longitudinally through the lode, dipping from east to west, at an angle of about 45°, immediately close to this slide the lode was very much disordered, and the general mass impoverished. This is the usual characteristic of slides; and Captain Cotesworth has always entertained a confident expectation, that when the mine should be sunk so low as to be entirely beyond its influence, the lode would again become rich. In order to ascertain this important question, the directors suggested last year to Mr. Edward Harding, the present chief superintendent of the company, that the sinking should be continued till a junction could be formed with a new shaft, about 180 fathoms below the surface, and that the value of the lode should be then fully proved at that depth, by driving both east and west. By the last advices from Cata Branca, this depth had been reached, but the entire examination of the ground could not be completed before the end of the year. Some improvement, though not to any satisfactory extent, has taken place in the lode—the value, which for the first six months of 1844 was 51 tons to the 1 lb. of gold, having since averaged 44 tons to the 1 lb.

In May last the directors, after serious deliberation, again wrote to Mr. Harding, calling his attention to the cost of the company, and to the absolute necessity of steps being taken to prevent its being further increased. From letters recently received from Mr. Harding, in reply, the directors still hope that the deep workings may be continued—&c., expecting them to yield 1 lb. of gold a day, and that the expenses do not exceed that amount, the produce from the other parts of the Cata Branca Mine, added to that from Gaudaréo, may be estimated as profit.

In the event of its becoming necessary to abandon the deep workings, the arches and ground left standing for the purpose of protecting them will be taken down; and this ground being rich, the produce is calculated, at a low estimate, at 2½ lbs. of gold, or about 8000l. in value. The other alterations alluded to by Mr. Harding, of working the Cata Branca lode inkeeping, will be then resorted to; and he expects that the produce from this source and Gaudaréo will be 17,000l. a year, which, with an expenditure reduced to 15,000l. or 17,000l. a year, will still yield a profitable result.

It has not been thought requisite to lay before the meeting a detailed statement of the accounts of the company, which have been examined by the auditors, and may be inspected by the shareholders at the office. The statement appended to the last report was to the 31st December, 1842, at which date, it will be remembered, that a debt existed of 9000l. The gold produce from that period to the end of 1843 so far exceeded the expenditure as to have admitted, not only of the repayment of this debt, but also of a further outlay in stock to the amount of about 6000l.; but, during 1844, the expenditure, although much diminished, has exceeded the produce, and on an estimate of the capital and available funds on the 31st December last, there was a deficit of about 4000l. The debt of the company at present exceeds that amount—the engagements of the directors being about 8,000l. beyond the funds in hand. This excess arises partly from payments in anticipation of remittances, and partly from an extraordinary and unprecedented drought, which had prevailed in Brazil for eighteen months, and had so diminished the water-power for the stamps, that, as stated by Mr. Harding, there was an accumulation of 1,500 tons of ore, which could not be stamped till the return of the rainy season.

The directors are happy to state, that, since the report was drawn up, letters have been received from Mr. Harding, by which it appears that an improvement had taken place in the lode in sinking.

The captain's reports will be found under "Mining Correspondence."

The Chairman regretted the directors could not supply any further information to the proprietors. He was sorry for the absence of Capt. Cotesworth, who was ill in bed, as he could confirm the statements in the report by his own opinion and experience.—Mr. Gray said the directors had advanced 8000l., and now increased their responsibilities 8000l. more.—The Chairman: No; the total is about 8000l. in the present time.

Mr. Gray wished to know the estimated value of the property in the Brazils?—Mr. Cotesworth (a director) said that was a difficult question to answer beyond this, that if they were to be dissolved, there would be enough to pay off their debts, and leave a large surplus.—Mr. Wray thought there was an appearance of the mine looking better than at any former time.—Mr. Cotesworth said the directors thought so, and wished to prove if the mine was of any good or not; but, in the mean time, they did not call upon the shareholders, but came forward themselves. (Hear, hear.)

The report having been adopted, Mr. Gray alluded to the handsome way in which the directors had come forward to second the examination they thought requisite, by incurring great responsibilities, and to the number of years they had given their best attention to the company without remuneration. He hoped the appearance of the mine was an indication of much prospective benefit to the proprietors, and that the next time they met, it would be under more favourable auspices, so as to be gratified with the sight of a dividend. He begged to move a vote of thanks to the directors.—Mr. Wray seconded the motion, which was passed unanimously.—The meeting then adjourned.

Duffryn Llynvi and Porth Cawl Railway.—A meeting of the shareholders was held yesterday week, at which Mr. Bradley read a statement of the present condition of the company, showing 1137l. 15s. profit on the half year. The Rev. Mr. Knight made some complaints as to the state of the line, which, however, were satisfactorily answered by Sir R. Price, who said that 8000l. had been already laid out in improvements, and the directors were in treaty to borrow 5000l. more for the same purpose—the probable expense of re-laying the road, and fitting it for the introduction of locomotives, is about 3000l.—A dividend of 3½ per cent. was declared.—From the present prospects of the company, the directors anticipate that they will ere long be enabled to introduce steam and materially improve the line, at the same time returning a profit to the shareholders.—A correspondent, in noticing this meeting, says—"The proceedings certainly gave very great satisfaction to the shareholders; and the dividend declared was paid at the time to the [illegible] present, and will be to every shareholder in a few days. There was some discussion relative to the state of the road—to keep it in repair according to its present plan, was agreed on all hands would be wholly inadequate to the increased, and still increasing, trade; and it was finally recommended to the committee to adopt such measures as would effectually put an end to all complaints, by so laying it, as as to carry locomotive engines, and thus take the haulage into the company's own hands. Two years ago, the company were largely in debt, had no money in their bankers' hands, and shares were sold for [illegible], &c. each, which cost 100l.—now, they are nothing, have a large balance, and 100l. per share was offered and refused at the said meeting. All the difficulties which so long stood in the way of its prosperity have happily been overcome and removed; there is now no perpetual [illegible] to be dispirited, no obstacle [illegible] to be disapproved, so that the shareholders may confidently look forward to the receipt of their half-year's 3½ per cent. dividend, at no very distant period."

New Steam Engine.—M. Dutremblay has thought of substituting hydrochloric ether for water. At the last session of the Academy of Sciences, M. Pouillet stated that a machine of M. Dutremblay on this system, in which the boat has been a high pressure steam-engine of a horse power was used, gave of itself an available power of four horses. We trust the report of the Academy on this subject will not be long before it is forthcoming.—*Moniteur Industriel.*

Simple Mode of Purifying Water.—It is not so generally known as it ought to be that powdered alum possesses the property of purifying water. A table-spoonful of pulverised alum sprinkled into a hogshead of water (the water stirred at the time) will, after the lapse of a few hours, by precipitating to the bottom the impure particles, so purify it that it will be found to possess nearly all the freshness and clearness of the finest spring water. A pailful, containing four gallons, may be purified by a single tea-spoonful.

Phosphorescence of Lamps.—M. Arago asserts that the state of polarisation presented by the light proves that it proceeds from the interior of a solid body; an inflamed gas, on the contrary, gives no kind of polarisation. Thus it may be assumed, that the luminous portion of the sun is a gas. The light given out by a solid body comes partly from the interior, and is not the same which illumines it.

## MINING CORRESPONDENCE.

### ENGLISH MINES.

#### HOLMBUSH MINING COMPANY.

*Nov.* 18.—In the sump winze sinking below the 110 fathom level, and in the same level west of Hitchins's shaft, the ground continues favourable; in the stopes in the back of this level, east and west of Michell's winze, the lode is eighteen inches wide, and worth 22l. per fathom; in the stopes west of Goldsworthy's winze the lode is one foot wide, and worth 12l. per fathom; in the stopes west of Lobb's winze the lode is sixteen inches wide, and worth 25l. per fathom; in the south lode stopes, east and west of Goldsworthy's winze, the lode is fourteen inches wide, and worth 20l. per fathom. In the 100 fathom level, west of Hitchins's shaft, the lode is twenty inches wide, and worth 40l. per fathom; at this level, east of the south cross-cut, we have cut the cross-course, the lode up to this point has been equally good as when last reported, worth 36l. per fathom; in the eastern stopes in the back of this level the lode is one foot wide, and worth 9l. per fathom; in the stopes west of Hitchins's shaft the lode is fourteen inches wide, and worth 13l. per fathom; in the stopes east of Forest's winze the lode is ten inches wide, and worth 6l. per fathom; at this level east of Wall's shaft the lode is small and poor. In the ninety fathom level, west of Hitchins's shaft, the lode is still in a disordered state; in the stopes west of Pearce's winze the lode is fifteen inches wide, and worth 10l. per fathom; in the stopes west of the end at Hitchins's shaft the lode is fifteen inches wide, and worth 16l. per fathom. In the eighty fathom level, west of Hitchins's shaft, the lode is fourteen inches wide, and worth 12l. per fathom; the lode in the rise in the back of this level is nine inches wide, producing stones of ore. In the sixty-two fathom level, west of the great cross-course, the lode is ten inches wide, and worth 5l. per fathom. The pitches are without important alteration.

J. Richards.

#### GREAT WHEAL MARTHA CONSOLIDATED MINES.

*Nov.* 16.—The engine-shaft is sunk nine feet below the seventy fathom level; in the aforesaid level going west the lode is six feet wide, composed of capel and mundic. In the sixty fathom level west the lode is six feet wide, composed of spar, mundic, and capel, impregnated with ore. The cross-course at the forty west is driven nine and a half fathoms.—At the new mine, Thomas's shaft is now sunk ten fathoms below the ten fathom level. The lode in the ten fathom level east is still three feet wide, composed of capel, mundic, and copper. The deep adit is now driven thirty-four fathoms.—We have commenced dressing another parcel of ore.

T. Penaluna.

#### COOK'S KITCHEN MINE.

*Nov.* 16.—In the stopes in the bottom of the sixty fathom level, east of the shaft, on North Tincroft lode, the lode is four feet wide, worth 12l. per fm.; ditto west of the shaft, lode four feet wide, worth 20l. per fathom; in the cross-cut, driving south from the sixty fathom level to cut the south lode, the ground is still rather hard; in the pitch in the back of this level (at 9s. in the 1l.) the men are getting good wages. We have not been able to do much in sinking the flat-rod shaft this week, in consequence of a breakage in the wheel which draws from the said shaft; we expect it will take the greater of next week to put it in repair. The new east shaft, sinking under the eighty-two fathom level, is down about ten fathoms under the said level, ground rather hard; the lode in the winze in the bottom of this level is still disordered by the cross-course; the pitch in the back of the eighty-two fathom level on this lode is still looking favourable. We are driving the cross-cut at the seventy-two level, to cut middle engine lode, ground favourable. Chapple's lode in the 120 fathom level has much the same appearance as last week, worth about 7l. per fathom for tin. We have not yet cut the lode in the cross-cut driving south at the 111 fathom level. The ninety-two cross-cut, driving north to cut Endey's lode, is still progressing, ground rather hard. Dunkin's lode in the 120 fathom level is three feet wide, producing stones of tin. In the 150 west the lode is three feet wide, worth 6l. per fm. for tin. In the cross-cut at the twenty-nine south from Rogers's shaft the ground is still hard. The lode in the shaft sinking on the counter is four feet wide, producing good work for tin. Since our last we have not been sinking the shaft on the Druid lode, having been timbering and securing it. Our tin pitches still continue to look well, and we find our supply of water daily increasing, which will soon enable us to make larger returns of black tin.

A. Endey.

#### WEST WHEAL JEWEL MINING ASSOCIATION.

*Nov.* 16.—In the 100 fathom level, east on Wheal Jewel, the lode is one foot wide, unproductive. In the eighty-five fathom level, east on ditto, the lode is worth 12l. per fathom; in the same level, west on ditto, the lode is still in disordered ground. In the winze sinking below the seventy, west on ditto, the lode is worth 10l. per fathom; in the winze sinking below the seventy, east on ditto, the lode is worth 13l. per fathom. In the fifty-seven fathom level, east on Buckingham's, the lode is worth 4l. per fathom. In the thirty fathom level, east on Moreom's, the lode is three feet wide, still very promising for ore. At Wilkinson's engine-shaft, sinking below the fifteen fathom level, the lode is two and a half feet wide, with a small leader of ore on the south wall. All other places are without alteration.

S. Lean. R. Johns.

#### CALLINGTON MINING COMPANY.

*Nov.* 16.—The north engine-shaft is sunk three fathoms below the eighty fathom level; at this level driving south the lode continues to yield work of rich quality; the backs we are leaving will pay 4s. in the 1l. on the value of the lead. The lode in the seventy has improved in the past week, the backs will pay at 8s. in the 1l. The sixty, fifty, and winze below the forty, are opening of tribute ground. The copper lode at the seventy is improving in size, and has a very promising appearance, producing good stones of copper ore; there is also a feeding branch approaching the lode. Johnson's engine-shaft men are now fixing a lift at the ninety fathom level; at this level driving south the lode is disordered for the present by hard branches of capel; in the north end we are opening tribute ground. In the eighty fathom level north we have still a rich lode, leaving backs that will pay at a low figure; in the south end we are driving through ground that will work at a moderate tribute; the same may be said of the sixty, and also of the winze sinking below the seventy.

J. T. Phillips.

#### CORNUBIAN MINING COMPANY.

*Nov.* 16.—I have again gone through these mines to-day, underground, with the agents, and beg to hand you the following as my report:—Murray's engine-shaft is in very congenial ground, and the Chiverton lode there is from eighteen inches to two feet wide, yielding rich stones of lead; we have not seen this shaft looking so promising for many fathoms sinking. At the seventy-eight fathom level, driving west of Murray's engine-shaft, Chiverton lode is two feet wide, but at present unproductive; at this level, going south-east on the caunter lode, the lode is near two feet wide, worth about 1 ton of lead per fathom; in driving on this lode north-west, it has come in contact with the Chiverton lode, and so far the caunter accompanies it, showing no separation in that direction—being now satisfied on this point, we have removed the men from that place to rise a winze on the said caunter lode from the back of the seventy-eight fathom level, which will throw a greater light on this new feature presented lately. At the seventy fathom level, some of the pitches on the north lode look well, and are improved since setting day. At Ventongimps, the lode at the eighteen fathom level is promising going east, and producing some lead; we have set a pitch there in the back of the level, at 3l. 15s. per ton. The shaft sinking below the eighteen fathom level is progressing rather slowly, owing to the increase of water from the almost incessant rain.

R. Rowe.

#### TRELEIGH CONSOLS MINING COMPANY.

*Nov.* 16.—In the sump winze below the eighty the lode is two and a half feet wide, not broken this week, but looks well. In the seventy east of Good Fortune the lode is three and a half feet wide, rather kindly, with stones of ore; in the seventy west of ditto the lode is three feet wide, producing stones of ore. In the sixty west of ditto the lode is two and a quarter feet wide, worth 12l. per fathom, with a very kindly appearance. In the winze below the fifty east the lode is one foot wide, worth 7l. per fathom; in the winze below the fifty west the lode is two and a half feet wide, worth 5l. per fm. In the fifty west of Spearn's the lode is eighteen inches wide, worth 4l. per fathom. In the forty four west of ditto the lode is twenty inches wide, worth 7l. per fathom. In the thirty-four west of ditto the lode is two feet wide, producing stones of ore. In the winze below the twenty west the lode is four feet wide, kindly, with stones of ore; in the adit west of ditto the lode is one foot wide, poor. At Gurnen's shaft at the seventy, we are dividing the shaft, and putting in pent-house, with other necessary work, for sinking below this level; we hope to commence sinking the latter part of next week.

W. Symons.

#### TREVOR MOLA MINING COMPANY.

*Nov.* 16.—In the eighty fathom level eastern end the lode is four and a half feet wide, two feet on the north part are of good quality; in the western end the lode is three feet wide, very throughout, but not rich. In the seventy fathom level the lode in the eastern end is three feet wide, eighteen inches are of average quality; in the western end the lode is four and a half feet wide, very homogeneal, of a coarser quality; the lode in the stopes is three feet wide, fifteen inches good ore. In the sixty fathom level, east of eastern shaft, the lode is three feet wide, eighteen inches are of average quality; west of Doran's shaft the lode is four feet wide, producing but a small quantity of ore; in the winze the lode is three and a half feet wide, two feet are of good quality; nothing done in the cross-cut for the past week, in consequence of the water being in. In the fifty fathom level, the ground is favourable for driving, rather improved since last week. In the thirty fathom level we are discontinued for the past week. In the ten fathom level the lode is three feet wide, producing some good stones of ore, with a promising appearance.—At Wheal Spanish, at the fifty fathom level, in driving the cross-cut north, we have cut the lode, it is three feet wide, producing some good stones of ore, looking much better than it did in the forty cross-cut above. In the forty fathom level

eastern end the lode is twenty inches wide, ten inches ore of good quality; in the western end the lode is eighteen inches wide, one foot ore of average quality. In the thirty fathom level, no lode broken in this end for the past week. In the twenty fathom level no alteration for the past week. In the ten fathom level, on Stoney's lode driving west, the lode is eighteen inches wide, producing but a small quantity of ore; we have not cut the lode as yet in this cross-cut. N. LANGDON. T. TREVENEN.

CONSOLIDATED TRETOIL MINING COMPANY.

*Nov.* 18.—The lode in Henwood's shaft, sinking under the sixty fathom level, is twenty inches wide, worth 7*l.* per fathom, price for sinking 7*l.* 10*s.* per fathom; the lode in the sixty fathom level, west of Henwood's shaft, is fourteen inches wide, worth 3*l.* per fathom, price for driving 2*l.* 15*s.* per fm., tribute (when set) 10*s.* in the 1*l.*; the lode in the sixty fathom level, east of Henwood's shaft, is fourteen inches wide, worth 3*l.* per fathom, price for driving 3*l.* per fathom, tribute (when set) 10*s.* in the 1*l.*; the lode in the rise in the back of this level, east of Henwood's shaft, is twenty inches wide, and worth 4*l.* per fathom, price for rising 2*l.* per fathom. The lode in the fifty fathom level, east of Henwood's shaft, is one foot wide, producing some good ore, price for driving 2*l.* 5*s.* per fathom. The lode in the forty fathom level, east of Henwood's shaft, is fourteen inches wide, worth 4*l.* per fathom, price for driving 2*l.* 15*s.* per fathom, tribute (when set) 7*s.* 6*d.* in the 1*l.* We have sampled this day 100 tons of ore. H. WILLIAMS. J. MORCOM.

BEDFORD UNITED MINING COMPANY.

*Nov.* 19.—At Wheal Marquis, the fifty-eight fm. level east has been holed to the sump winze, and the lode is about two and a half feet wide, composed of gossan, spar, and ore, worth 12*l.* per fathom; at this level west the lode is two feet wide, and worth 15*l.* per fm. The lode in the forty seven fathom level west still continues productive, being twenty inches wide, and worth 16*l.* per fathom; no lode has been taken down in the winze in the bottom of this level since last report; in the rise in the back of this level the lode is two feet wide, and worth 20*l.* per fathom. In the winze sinking in the bottom of the thirty five fathom level west the lode is two feet wide, and worth 20*l.* per fathom. The lode in the deep adit level is without alteration. The pitches are looking well.—At Ding Dong, the lode in the twelve fathom level east is two feet wide, composed of spar, mundic, and ore, saving work, and very promising; in the back of this level, about six fathoms west of the present end, a pitch has been set, in which the lode has proved very productive, being about three feet wide, and worth 25*l.* per fathom.—At Wheal Tavistock, we are busily engaged putting in machinery, as last advised. Our Friday week's sampling will be 110 tons of real good quality ore. On the whole, I am happy to say that our prospects are very encouraging. J. PHILLIPS.

STRAY PARK AND CAMBORNE VEAN MINES.

*Nov.* 16.—In the sixty-five fathom level cross-cut, driving north in Wheal Gons, the ground is favourable, and set at 5*l.* per fathom. In the ninety end, driving west on the south lode, there is a good course of ore, yielding 3 tons to a fathom, which has made its appearance within the last six feet driving; this end is going in over the 100, and within seven fathoms of the present end. In the 100 fathom level driving west, during the last month, we have driven about three fathoms on a course of yellow ore between five and six feet wide, which has yielded from 12 tons to 15 tons per fathom, and at the present time it is fully as good in back, bottom, and end, with every appearance of making a lasting course of ore; the lode which fell in from the south seems declining in going east, and we think it probable that it will again slip out into our main level; at the commencement of the course of ore in this (100 fathom) level we are now sinking a winze, and we find the lode continuing both its size and quality in going down. We shall sample, on Wednesday next, upwards of 20 tons of ore from this new discovery, which has been broken in little more than three fathoms of ground. The 110 fathom level we have resumed driving west, and which is within fourteen fathoms of the 100 end—the lode at present is small. The 120 west is within nine fathoms of the 100 end—the lode during the past month in this western end has averaged about eighteen inches wide, but not rich; in the 120 east the lode throughout the past month has yielded a tons of ore to a fathom. The 140 fathom level, driving east, is still unproductive. In the cross-cut at the 130 fathom level we have intersected the south lode, and find it to be a strong lode, between two and three feet wide, composed of spar and yellow ore; we have commenced driving on it both east and west, and we hope in our next report to be able to speak of it in an improved state. In the 130 we have communicated with the level above, and thereby let down the water from the bottom of the 120, and afforded free ventilation to this part of the mine; we have commenced driving a cross cut south at the 100, to intersect our south lode, which object we hope to accomplish in about three months from this time. The mine is just getting into good working order, with a fair prospect of remunerating the adventurers. R. KEVERN. E. RALPH.

## FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY.

*Morro Velho, Sept.* 8.—Produce for August, 11,488 oits.=110·762 lbs. troy, from 2048 tons of ore=4·426 oits. per ton; 112 tons of previously rejected ores were stamped, but, on the other hand, a large quantity of West Cachoeira ores were rejected. I consider the produce a very good one; and you will be pleased to learn, that the West Cachoeira has yielded for the month 3·967 oits. per ton (say 4 oits.), which is an improvement of some 30 per cent. on the previous yielding.

*Mine Report.*—In this report there is nothing particular to remark on. A new winze is now heading from the West Cachoeira, and the clearing out of attle from the western part of this working still continues. The Earden leat is now nearly completely repaired, and will be an excellent leat.

Cost for August, Rs. 21,024 #[illegible], ex. at 26*d.*—2232*l.* 12*s.* There are two heavy items in this cost—Buyer tons, Rs. 920 #790, and Ferjaars (Bean's), Rs. 2180; but there is nothing to find fault with, considering the spirit with which the works are being pushed. C. HERRING, Jun.

Received, per packet, 100 lbs. 0 oz. 0 dwts. troy of gold.

IMPERIAL BRAZILIAN MINING ASSOCIATION.

*Gongo Soco, Sept.* 13.—On the 10th and 11th insts. we were gratified by the discovery of a bunch of gold within about five or six fathoms of the surface, west of Pragilly's shaft, considerably to the west of anything equally valuable discovered in our previous workings; it has yielded for the working-house 15 lbs. 1 oz. 10 dwts., but to day it has been unproductive; we are, however, not without hope that we may yet see more of it—and although, compared with your former riches, the quantity is not great, yet, being in ground not very thoroughly worked, it has greatly raised our spirits. The other parts of the mine call for but little remark. We have commenced two exploratory cross-cuts in the eastern part of the estate, the most easterly not far from that which I recommended and commenced some months since. The stamps produce is slightly improved, and, as the rains have commenced, we hope will be still better during the ensuing ten days. Cata Preta presents nothing new, and, as our present works are exploratory, we scarcely expect much from them until further advanced. W. J. HENWOOD.

*Gold Report.*

| | From the Stamps. | | Total raised. |
|---|---|---|---|
| Sept. 3 to 9 | | —— | lb. 1 10 16 0 |
| " 10 | lb. 0 11 0 0 | | 0 11 0 0 |
| " 11 | | —— | 10 0 5 0 |
| " 13 | | —— | 3 3 10 0 |
| Nine days | | | lb. 16 4 4 0 |
| Total from 1st July to 13th Sept. | | | lb. 79 7 7 0 |

BRAZILIAN COMPANY.

*Cata Branca, August* 24.—The inclosed weekly gold report, I am happy to say, bears out the hope expressed in my last of an improvement in the bottoms, where the appearance of the ground, particularly on the north wall side, and close to the pump, has so much changed for the better, that, without being at all sanguine that such will be the case, I trust we may yet fairly look forward to better times than of late. I anxiously await the next few weeks' stamping to prove this, or otherwise. The passing any opinion experience has shown to be of little value, and the gold reports must speak for themselves. The rainy season appears likely to set in early this year. A few refreshing showers have already fallen, and I hope soon to see an increased gold return from the more efficient stamping at Cata Branca, and fully working the two 6-head stamps at Boouldeuro.

*August* 30.—In the mine I have no alteration to notice. The gold report for this week will not, I fear, exceed 6 lbs. to 7 lbs., but this does not arise from any falling off in the value of the stone from the bottoms, but from the fact of the bottoms having been partially under water for two days, and the stamps having been then supplied from No. 6 stopes, the lode from which is as bad as it can be. At the same time, this ground must be worked, for, if it is found that the bottoms continue to improve, we may fairly assume that the eastern ground, sooner or later, will do so likewise.

*Sept.* 6.—I trust the stamping of this week will fully bear out the improvement which I have mentioned in the lode below. I look to 8 lbs. or 10 lbs. of gold from 300 tons of ore, and that mixed ore, some part being from No. 6 stopes, where the ground continues miserably poor.

*Sept.* 9.—The inclosed gold report, though not so good as I hoped it would be, still shows no falling off in the lode below. The only reason that the produce did not reach 9 lbs. to 10 lbs. was, that, towards the latter part of the week, we were again obliged to fall back upon the eastern ground, at No. 6 stopes, in which there is no improvement. The western stopes are, if anything, better, and I think that the present week's gold report will prove that they are so. We are still doing nothing at Boouldeuro, from the want of water; this is provoking, for a mass of stone is there broken, and there is every facility for breaking more.

*Sept.* 14.—I am happy to inform you that the improvement lately noticed continues. You will see, by a reference to the inclosed gold report, that the average of the lode stamped in the past week is about forty tons to the pound, and, when it is considered that only 300 tons of western and shaft ground were stamped, the latter of which is still poor, and that the remainder was from the eastern ground, or No. 6 stopes, which continue very bad, the great change for the better westward in the more marked. I look to this week's stamping with anxiety, as I hope to keep the stamps pretty well supplied from the western and shaft ground. I also expect to do better at Boouldeuro, as both sets of stamps are to-day, for the first time, doing something like duty, but the rain which has hitherto fallen has not been sufficient to have a lasting effect on the springs. E. HARDING.

Gold return for four weeks to 13th Sept.—34 lbs. 0 oz. 10 dwts. 16 grs.

ALTEN MINING ASSOCIATION.

*Alten Copper-Works, Sept.* 20.—The short time elapsed since my return to the works has not been sufficient to fully investigate and make myself acquainted with all the works carried on, and discoveries made, during my absence; consequently, I am prevented from entering so fully into detail on the prospects of the different mines as I could wish. The following remarks are made only from a cursory inspection of some of the lodes; but I hope in my next to lay before you a report founded on a more minute investigation.

*Raipas.*—The workings on this mine have been much extended, particularly to the northward, where several promising lodes have been met with. Judging from the kindly appearance of the backs, consisting of gossan and small patches of rich black oxides and sulphurets of copper, together with the green and blue carbonates disseminated throughout the same, and the rich appearance of several of the new places to the north of the ten fathom level, as well as in the vicinity of shaft No. 1, I can conf[i]dently state, that greater reasons for expecting a permanent supply of ore from this mine have never been presented, neither have I seen the prospects, on the whole, so flattering for many years.

*United Mines.*—The stopes in the eighty fathom level (the only operations at present conducted on this branch of the concern) are all very poor. None of the present workings can by any means pay the costs; and next month it will be necessary to make an alteration, for the security of the mine and lives of the workmen, as well as for exploring the lodes in depth, at less expense and more expeditiously than at present. The lode in the bottom of the shaft still continues to dip northerly, and directly under the workings in the eighty; it contains some good ore, disseminated throughout with calcareous spar and quartz, of which it is principally composed. Some new workings will be necessary for laying open the lode in this part of the mine; and, after making myself acquainted with the run and dip of the lode, and its general appearance under the eighty, they will be determined on, and made known to you for approval. The ore from this mine, as denoted by the delivery notes, is of very inferior quality, and will undoubtedly prove more advantageous to the establishment if returned in smaller quantities to the smelting-house, after being dressed to a higher per centage.

*Ryper's.*—This mine continues equally promising; the lodes are large and regular, and at the different points of intersection (which cannot be far distant) we have every reason to expect the same improvement that has invariably taken place on other branches of this establishment, where a number of lodes and veins have been found intersecting each other.

*Quantip.*—The lodes here, although numerous, from being so small, cannot return any large quantity of ore, and particularly since the falling in of the old excavations has prevented the further prosecution of the workings; a part of the rubbish is now being removed, and it is proposed to drive a level on the course of the lode when it is again opened, and we hope shortly to regain the ore[y] part of the vein. The more recent discoveries are so new to me, and the lodes so totally different from those I have hitherto been accustomed to, that you will excuse me for not entering so fully into detail on their prospects, and for not giving my opinion thereon, before I have become acquainted with their several situations, run, and bearings with regard to each other, the nature of the rock containing them, and the mineralogical and geological character of that part of your mining district in which they are situated.

*Wilson's.*—The two bargains working on the new lode have become very poor; in the ensuing month it is proposed to place four of the men to explore Wilson's old workings, whilst the other four will be employed in the sink on this lode, to determine, if possible, the dip of the ore in depth.

In the dressing department, the stamps only have latterly been at work, and preparations are now making for closing these operations before the winter sets in; in the early part of next week the whole stock of stamped ores will be returned to the smelting-house. In my next, I hope to be prepared to lay before you a description of the workings necessary for the further prosecution of the mines, and the prospects presented by the same, for your approbation. S. H. THOMAS.

COPIAPO MINING COMPANY.

*Copiapo, June* 30.—In presenting the report of the prospects, operations, and produce of the company's mines for May, I beg to observe, that at the San Jorge silver mine we have in the bottom, or deepest part, a lode more than five feet wide, nearly the whole of which contains a small quantity of silver, and has so much of a metallic appearance, that it has been judged by some, who have had considerable experience in silver mines, to be ore of good quality; and we fully believe that the day is not far distant when this lode will be found productive of good ore, and in large quantities. In the ten fathom level we have had a pretty little vein of silver ore, from which we extracted in May forty-five quintals, and it still looks very encouraging, with silver perceptible. The other lode, so far as we have opened it, has a cheering appearance, and I hesitate not to say that the mine altogether has never shown at any time so many pleasing indications as at the present. At the Chico copper mine, where in the west end there was a beautiful lode of ore about the middle of May, it was soon after unexpectedly cut out, by coming in contact with the "limb" of a cross-course, that heaved or dislocated the lode, and threw it out of its course two fathoms; here we were occupied a fortnight in its pursuit before we found it, which considerably affected our produce for May; but I am happy to inform you that we have found the lode again, and nearly as productive of good ore as before it encountered the heave. In the east end our prospects are nearly the same as when last reported on, and with our present force, being four additional hands, unless some unforeseen disappointment intrude itself in our way, the produce will in future be increased. I have many times in Chico seen good bunches of rich ore from two to three feet wide, which in less than two feet advance have entirely disappeared, leaving the end without a single spot; and, on the other hand, we sometimes rather unexpectedly meet with good bunches; this is more or less experienced in most mines, but I never yet saw a mine where it so frequently occurs as in Chico. The lode in the bottom of Pampa Larga silver mine, where we are still sinking, is full three feet wide, and nearly free from the confusion produced by the junction. It has still a little arsenic mixed with quartz, but which continues to decrease as we proceed in depth, and will, I think, shortly entirely disappear; the lode is much harder than in the levels above, consequently we cannot make that progress we otherwise should. The long level east is nine baras, and the lode large, with an appearance equally flattering to what it has ever been. The lode in the winze, sinking below this level, is precisely the same as when last reported on. We are sinking and driving on the lode near the Estaca Del Rey, which in each of the workings is full two feet wide, producing ore throughout; so this lode that quality ore is abundant; all the other parts remain without alteration. At San Pedro copper mine our prospects are exceedingly cheering, although as yet the produce is not great, but when you take into consideration the short time since we commenced operations there, and what we have accomplished in that time, have sunk a new shaft, unwatered the mine, and cleared out hundreds of tons of rubbish, with still a great deal more to do, in order to bring the mine into a good state of working. All these things being considered, that have been carrying on in the same time, I do not think the produce bad; however, I have no fear we shall go on increasing here. In driving the twelve fathom level south the lode has been poor for the last five fathoms, until about fifteen days since, when we discovered in the bottom of the level a good lode, eighteen inches wide, and have passed on through it, or rather over it, four fathoms in length; the ore does not come up above a foot in the level, which leads me to believe it is the top of a new shaft, or bunch of ore, to prove which, we shall as soon as possible commence the sinking of a winze down through the best part, as far as we can judge from appearances in the bottom of the level; and if this turn out as it promises, it will give still a brighter and more cheering feature to the concern. The new capaces lode varies in width from one and a half to two feet, about five inches of which is ore of good quality; I fully believe that this will improve in depth, especially as we approach to, or come into contact with, another vein that we have only a few fathoms distant, and which is running parallel with the main lode. This new parallel lode we found at the surface, in climbing over and carefully examining the hills, when in Pequios in May; we have been working on it now about three weeks, in which time two of our English miners have taken out about two tons of ore, that I am confident will produce 40 per cent. of copper; those three stones which I gave you from this lode are about an average quality of the ore extracted; this, only a few varas below the surface, is, in my opinion, presenting the most encouraging prospects. In the Quebrada copper mine we have been digging all the little value of good ore in the shallow or upper parts of the mine, and in the last month succeeded in raising rather more than I expected, by cutting into a large gossan lode, that had been by the old workers left to stand only five or five fathoms below the surface. No other improvement whatever has taken place. The produce in San Pedro for May, 30 tons; Chico, 22 tons; Quebrada, 20 tons—total, 72 tons.

[The *Margaret Hardy* has arrived at Swansea, with 410 tons of copper ore for this company.]

## MINE ACCIDENTS.

*Engle's Bank Colliery.*—A large stone fell on the head of a miner, named Summers, and literally crushed him.

*Cambergreek.*—Two fatal accidents have occurred here—one to R. Ashton, from an explosion of fire damp; the other to J. Jones, who was killed by a fall of rubbish.

*Pemberton, near Wigan.*—An eruption of water and foul air occurred in Mrs. Woolmer's colliery, by which R. Fairbrook and W. Parkinson were killed, and eight others more or less injured. We believe the chief cause of the accident to have been, the ignition of the foul air by lights which were being used by a party of men, who accidentally passed near the spot at the time.

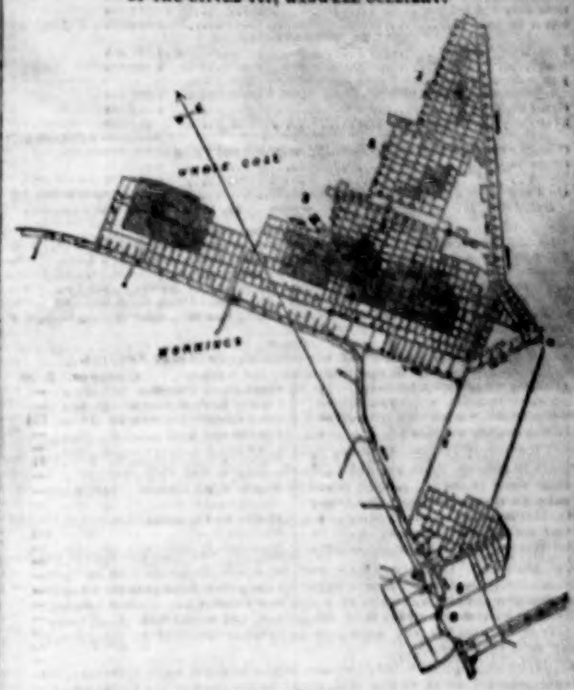
*Bedwas Colliery, near Hamilton.*—Three brothers, named Laird, and a companion, were sadly mangled from negligence on the part of the engine man, in allowing the cage to be drawn up to the hurl's.

*Blaenavon.*—Awks a little boy, the son of a furnace working at one of the Rhymney furnaces, was playing about the rails, his foot slipped, and he fell into the furnace; his father, who was standing by, immediately sprang in after him, hoping to save child—but he was too late. The father then had to extricate himself from his dreadful position, which he was obliged to do by catching hold of an iron bar, little less than red hot, and swinging himself out; but as soon as he had done so, he was senseless; he was carried home, and now lies in a dangerous and uncertain state.

## EXPLOSION AT HASWELL COLLIERY.

Having received several communications requesting that we would obtain a plan of the workings, we now present to our readers a diagram, showing the workings in the Hutton seam, in the north-east district of the "Little Pit," at Haswell Colliery. Some remarks from a correspondent, who possesses much local and practical knowledge, will, we have reason to hope, appear in our next or an early Number.

PLAN OF WORKINGS IN THE HUTTON SEAM IN THE NORTH-EAST DISTRICT OF THE LITTLE PIT, HASWELL COLLIERY.




EXPLANATION.

1. Low Brockley Whins Way.
2. High Brockley Whins Way.
3. Meadows Way.
4. Furnaces.
5. Little Pit.
6. Engine Pit.
7. Engine plane to the East Workings.

— Represents a stopping. D D Doors.
× Represents a crossing. R A regulator.
☞ * The point where the fire is supposed to have originated.
* Furnaces. The *Arrow*—The direction of the air.

## MINING IN THE EASTERN DISTRICT OF CORNWALL.

[FROM A CORRESPONDENT.]

The lodes in this part of the county have within the last few years attracted considerable attention by the productiveness of those valuable mines, South and West Caradon, which has been followed by the taking up all the ground for mining purposes within several miles of the locality of Caradon Hill. Perseverance is the characteristic of the mining capitalist, for he is not deterred by the misfortunes of others from recommencing adventures that have been abandoned by former parties, and, consequently, workings have been renewed upon old mines, with every probability of becoming lasting concerns. Wheal Gill, in the parish of St. Ive, a few miles south of the Caradons, has recently recommenced, and an excellent lode of copper ore has been discovered in the ten fathom level, which is in course of driving, whilst the water-wheels are about to be displaced for the more efficient power of the steam-engine, in consequence of the deficiency of surface water. The copper of Holmbush and the silver-lead of the Callington Mines have induced the opening of North Holmbush and the Great Wheal Martha lodes, with indications of much promise. Still going east, the Old Gunnis Lake and Hawkmoor lodes are developing the anticipated wealth, beneath the beautiful gossan, so gratifying to the practical eye of the enterprising Cornish miner; whilst on the borders of Devon, the Marquis lodes in Bedford Consols have placed this mine above a speculation. Adjoining this set on the north, a most valuable discovery in Wheal Maria has just been effected, under the superintendence of Mr. J. H. Hitchens; the shaft has been sunk to the depth of sixteen fathoms, and a course of solid copper ore of eighteen inches wide (stated to be worth 20*l.* per ton) has been laid open. In the parish of Calstock, workings on the silver and copper lodes of Harrowbarrow Consols are being resumed, whilst Harrowbarrow set is in course of being purchased for immediate working; here, in a short time, the united efforts of the engineer and miner will be engaged in developing the riches of this district—and, whilst the Great Caradon holds up his bold head with conscious pride of innate wealth, Kitt Hill will not be long here he contests the palm. This is, most decidedly, a great mining district.—*Devonport, Nov.* 20. Z. E. D.

[We are not apt to offer any comment on "Z. E. D.'s" communications; but a course of solid copper ore, eighteen inches big, worth 20*l.* per ton, is somewhat marvellous. What does our correspondent consider the lode worth per fathom for driving?]

MINING IN TAVISTOCK.—(*From a Correspondent.*)—Considerable work has been done at Wheal George and Charlotte, on the banks of the Tamar, Tavistock—the shaft having been sunk, and levels driven, by the late adventurers. On re-opening the mine, some good ore was discovered in the several levels, in which three pitches have been working, and a bargain set to drive into the hill beyond the cross-course, so as to be nearer the lode in the shallower levels—there being a constant supply of water to any required extent, for working machinery, dressing the ore, &c.

WHEAL ANDERTON.—(*From a Correspondent.*)—This mine, which has been looked upon with so much doubt, from the report that all the ore raised was procured in a barrow (not a burrow), is likely to prove itself fully deserving the unwearied exertion and energy observed by the manager, Captain Carpenter—three pitches having been set at 7*s.* in the 1*l.*—A SUMMARY, AND NO "ABSTRACT."

LEAD ORE.—A gentleman, a native of this city, newly arrived from Australia, has handed in to us a specimen of the lead ore (galena) found in that colony. We find, in a paper accompanying the ore, the following report of an analysis, made by a scientific gentleman, of the various components of the ore:—Silver, 10; lead, 40; sulphur, 12; silicious, &c., 38.—Total, 100.—*Aberdeen Herald.*—[Ten per cent. of silver is a large produce, and the ore would rather come under the denomination of a silver lode than for lead produce, as 40 per cent. would not pay of itself; if the assay be from a fair average sample, the value of the ore would be 200*l.* per ton.]

COAL IN TURKEY.—A letter, dated Constantinople, Oct. 28, says—"The coal mines of Erekle, having now been properly worked, are said to yield fuel equal to English coal; it will yet be some time, however, before we can do without the latter."

MIDDLETON COLLIERY.—The workmen belonging to Middleton Colliery and their wives, to the number of 5[illegible], have been entertained at dinner and tea by Mr. Blenkinsop, the proprietor of these works, to mark his approbation of their good conduct during a series of years past, and more particularly of their behaviour during the late strike. The speeches which were delivered exhibited a degree of good feeling highly creditable both to masters and men.

THE ACCIDENT AT BLACKWALL.—The inquest on the sufferers by the explosion on board the *Gypsy Queen* (full particulars of which we gave last week) terminated on Saturday, when the jury returned a verdict of "accidental death," adding—"That the death of Joseph Bounds and the other deceased persons was caused by the bursting of the main steam pipe, and that their bursting was occasioned by the false and improper construction of the joint of those pipes in not being sufficiently secured; and they request this opinion, in order that due caution may be used to prevent similar accidents which it appears to the jurors may be effected by a collar or ring to prevent the separation of the pipes in future."

## CURRENT PRICES OF STOCKS AND SHARES.

**STOCK EXCHANGE**, Saturday morning, Twelve o'clock.

| | |
|---|---|
| Canada Money, 10¼ ¾ | Dutch, 2½ per Cent., 64 ¾ |
| Canada Account, 10 ¾ | Ditto, 5 per Cent., 94¼ 95¼ |
| 5½ per Cents., 102 ¾ | Portuguese, Conv., 5 per Cent., 54½ 54 |
| Reduced 5 per Cents., 99 ¾ | Russian, 5 per Cent., 110¼ 109 |
| Long Annuities, 11 15-16 12 1-16 | Spanish, Actives, 5 per Cent., 24½ ¾ |
| Bank Stock, 215 ¾ | Ditto, 5 per Cent., 20¼ ¾ |
| Exchequer Bills, 4s 4d pm. | Chili, 6 per Cent., 100 ¾ |
| Belgian Bonds, 5 per Ct., 101¼ ¾ | Colombian, 6 per Cent., 18¾ 16 |
| Dutch, 2½ per Cent., 60 50 | Mexican, 5 per Cent., 30 ¾ |

PROMISSORY NOTES.—An amount of the average aggregate amount of promissory notes, payable to bearer on demand, which have been in circulation by the banks in Ireland, by the Bank of Ireland, and by all other banks in Ireland, during the four weeks ending the 9th day of November, 1844:—SUPPLEMENT: Chargeable private, and joint-stock banks, £.[illegible]—ISSUED: Bank of Ireland, £.[illegible]; private and joint stock banks, £.[illegible]—Total, £.[illegible].

*Stamp and Taxes, Nov. 21.* H. L. WICKHAM.

BANK OF ENGLAND.—An account, pursuant to the Act 7 and 8 Vic., cap. 32, for the week ending on Saturday, Nov. 16, 1844:—

ISSUE DEPARTMENT.

| | |
|---|---|
| Notes issued | £27,107,795 |
| Government debt | £11,015,100 |
| Other securities | 9,904,900 |
| Gold coin and bullion | 11,014,195 |
| Silver bullion | £27,107,795 |

BANKING DEPARTMENT.

| | |
|---|---|
| Proprietors' capital | £14,553,000 |
| Rest | 3,127,180 |
| Public deposits (including Exchequer, Savings Banks, Commissioners of Bankruptcy, and Dividend Accounts) | 3,973,100 |
| Other deposits | 6,075,204 |
| Seven days and other bills | 203,300 |
| | £28,003,007 |
| Government securities (including dead weight annuity) | £15,110,779 |
| Other securities | 9,190,300 |
| Notes | 3,927,000 |
| Gold and silver coin | 1,775,427 |
| | £28,003,007 |

*Dated Nov. 21.* H. MARSHALL, Chief Cashier.

[From our own correspondents.]

LATEST PRICES OF FOREIGN STOCKS.—5 per Cent. Consols, 99¾ to 100¼; 5½ Bills, 1844, ditto New, 1844, —; 3½ per Cent. Inscription, 101; Bank Stock, 214¾.—Kingstown Railway, 16¼; Dublin and Drogheda, 47¾.—Hibernian Bank, 31¼; Royal Bank, 61¼; National Bank, 38.—City of Dublin Steam Co., 104; ditto Stock, 100; 51¾; British and Irish ditto, 22¼.—Steam Ship Building Company, 12¾.—National Insurance Company, 16¼; Palatine, 9¼.—Mining Company of Ireland, 10¼; Wicklow Copper Mines, 19¼.

## CURRENT PRICES AT LIVERPOOL.—Thursday Evening.

| Stock. | Closing pr. | Sales. | Stock. | Closing pr. | Sales. |
|---|---|---|---|---|---|
| Aberdeen | 82½ 83 | 19 | London and Croydon | 10¾ 17½ | — |
| Berwick Junction | 18 | — | London & Portsmouth | 7½ 7½ | — |
| Bristol & Exeter | 5 | 5½ | Lond. & North Western | 75 75 | 75½ |
| Blackburn & Lancashire | 12 | — | London and York | 3 3½ | — |
| Blackburn & Preston | 7 | 7½ | Lyme and Ely | 3½ 3½ | — |
| Birmingham Mancn. &c. | 6 | 6 7½ | Manch. & Birmingham | 34 34 | 33 |
| Birming. & Gloucester | 90½ | — | Manch. & Leeds | 125 125 | — |
| Bolton and Kenton | 7½ | — | Manch. & Sheffield | 7½ 7½ | — |
| Bristol & Gloucester | 50 | 50½ | Manchester & Boston | 12 12 | — |
| Cambridge | 4 | 4½ | Manchester & Leeds | 115½ 115 | 115½ 18 |
| Cambridge & Lincoln | 5½ | 5½ | Midland Stock | 100 100 | 100 |
| Chester & Holyhead | 12 | 12 | Midland & Albion | 2½ 2½ | — |
| Chester & Walsall | 7 | 7½ | Newcastle & Berwick | 5½ 5½ | — |
| Clarence Valley | 5½ | 5½ | Newcastle & Carlisle | 108 107 | — |
| Great Bentham | 5½ | 5½ | Newcastle & Darlington | 89½ 90 | — |
| Dublin and Belfast | 7½ | 7½ | North British | 5 5½ | — |
| Dublin and Cashel | 9½ | 9½ | Northern and Eastern | 57 56 | — |
| Dublin & Drogheda | 47 | 50 | North Union, Stock & Loans | 149½ 149 | 149 |
| Dundalk & Enniskillen | 7 | 7½ | Do. Bds. | 6½ 6½ | — |
| Dundee and Perth | 50 | 5 | Norwich & Brandon | 11 11 | — |
| Eastern Counties | 13½ | 14 | Preston and Wyre | 17½ 18 | — |
| Edinburgh & Glasgow | 10 | 10 | Scottish Central | 20 21 | — |
| Edinburgh & Leith | 17 | 18 | St. Helens & Runcorn G. Jun. | 20 | 19½ |
| Edinburgh & Northern | 7 | 7 | Sheffield and Lincoln | 18 | 18 |
| Eye and Bedford | 14 | 14 | Sheffield & Manchester | 97½ 97½ | 97 |
| Glasgow, Paisley & Ard. | 8½ | 8½ | Shrewsbury & C. Junc. | 3½ | 3½ |
| Glasgow & Greenock | 13 | 13½ | Shrewsb., Warrnth. &c. | 7 | 7½ |
| Glasgow, Paisley & Ayr | 61½ | 62½ | South Eastern | 8½ | 8½ 8½ |
| Great Junction | 1½ | 1½ | Taff Vale | 7½ | 8 |
| Gt. North of England | 76 | 76 | Tiverton | 5½ | 5½ |
| Great Western | 150 | 150 | Tyne and Wear | 12 | 12 |
| Harwich | 7 | 7½ | Tyne and Tweed | 10 | 10 |
| Hartlepool & Hartlepool | 8 | 8½ | Ulster | 20 | 20 |
| Hull and Selby | 90 | 91 | Vale of Neath | 30 | 30 |
| Kendal & Windermere | 3½ | 3½ | Vale of Towy | 3 | 3 |
| Lancaster and Carlisle | 19½ | 19½ | Wear and Tees | 5 | 5 |
| Lancaster & Preston | 20½ | 20½ | Wilts and Berks | 5½ | 5½ |
| Leeds and Bradford | 20½ | 17 | Yorkshire | 5 | 5 |
| Leeds and Selby | 8 | 8½ | Yorkshire & Lincolnshire | 3 | 3 |
| Leeds and Thirsk | 5 | 5½ | Zealand | 1½ | 1½ |
| Leeds and Yorkshire | 3½ | 3½ | Zollverein | 3 | 3 |
| Liverp. & Manchester | 251 | 254 | | | |
| Liverpool & Preston | 7½ | 7½ | | | |
| London & Birmingham | 227 | 228 | | | |
| London & Brighton | 9½ | 9½ | | | |
| London & Dublin | 1½ | 1½ | | | |

*Stamp and Taxes, Nov. 21.* JOHN GREATREX.

LEEDS, Tuesday.—The old lines of railway, as the time approaches for forming a positive opinion of their value, from calculations made, based on the actual traffic for the last fourteen weeks (one of the-old ones, the half year), are beginning to attract the attention of capitalists as well as of speculators. We could point out just at a glance of each line, and in probable working condition, whose dividends will be as much increased at the next half yearly meetings (by the increase of traffic upon a to be explained), as would pay the interest on present sales, and return a very handsome profit for the money; and to each of those that we are in active correspondence with, we have already recommended our clients here for their profit by the to increase (whether yet to be seen. We cannot help pointing attention to one of those lines, which has already arisen and to price to 10 £, within as many days—the same the Manchester and Leeds, now at [illegible], which was only last week at [illegible]. This line will most likely pay 5 per cent. the present half year of all events it will pay 4; and considering the competition with which it is at this time threatened, and the bad effect that extends to its public connection. Turnover a month ago to Leeds that place of the Manchester to the Bradford ring line, for the purpose of enabling the directors to apply for an act this session to extend the line west to Bradford, to Skipton, and thence to Colne, there to meet the Preston and Berwick extension. Mr. Dickens promised, and, as usual, every thing was carried without the slightest opposition. To every friend of the original line the extension shares are to be prized for every fear that is taken. It is fully expected that this measure will [illegible] the price of the old stock, although as a step of any consequence took place in the market for these shares after the meeting. Its quite there and [illegible] to buy [illegible]. Whenever here, since we last wrote, not further business has taken place [illegible] [illegible] [illegible]